OFFICE ACTIVITY IN CENTRAL EDINBURGH:

THE INFLUENCE OF LINKAGES UPON OFFICE LOCATION

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TO S.I.C.

ABSTRACT

Management decisions to either remain in the central area of a city or to move to the suburbs often depend on the strength of personal contact with other firms. This may vary from city to city depending on the role other factors play in the locational decision. In central Edinburgh firms with weak face to face contact patterns have been moving out to the suburbs. However, in most cases factors such as car parking facilities, staff accessibility and the availability of office accommodation play a more important role in the locational decision. Under 10 per cent of the firms interviewed were dissatisfied with their central location, but many large organisations were moving out of the centre.

Edinburgh is a historic city and the Corporation is preserving the classical and Georgian townscape in the centre by imposing strict parking and planning controls. Many of the larger organisations can no longer house their increasing labour force in these historic structures without a loss of efficiency, so they are moving from the centre. The lack of off-street car parking facilities has also been a cause for professional offices to move to the suburbs. However, firms in suburban sites, as well as those who anticipate moving out,

are well established companies who have been in Edinburgh for many years. Linkages are therefore very important to a firm in its early years in the city. Once contacts are secured the decentralisation of an office or parts of an office - usually the routine sections - can take place.

If adequate car parking facilities were provided and suitable office accommodation was available in the centre, few firms would move to the suburbs regardless of their linkage patterns with other firms. Nevertheless, linkages do play an important role in managerial decisions at the present time, so that firms with weak contact patterns - sales offices, life insurance companies, building contractors and engineers - are moving to the suburbs.

DECLARATION

This thesis has been composed by the undersigned and is based on his own research.

John Fernie
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John Fernie

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CHAPTER 1.

INTRODUCTION

The aim of this study is to examine office activity in central Edinburgh, to analyse the linkages that exist between offices and to evaluate the role these linkages play in office location. The research material from this study will provide a contribution to knowledge about the office and office linkages in cities of intermediate size (100,000 to 1 million).

Although research is currently being carried out by Gottmann in Oxford, Vigarié in Nantes and by Gay in Rouen and Le Havre, there have only been two detailed studies of office locations and office linkages in cities of this size. In Bannon's study of central Dublin, he analysed the changing centre of gravity of office establishments from 1940 to 1970 and subsequently traced the geographical change and migration of office establishments from 1960 to 1970 (Bannon, 1972). He used cluster analysis to identify the types of office that were linked together on the basis of face to face contact relationships in order to assess the effect linkages had on locational choice in central Dublin. In an earlier survey, Facey and Smith - sponsored by the Location of Offices Bureau (L.O.B.) - carried out a broad based study of office location in Leeds (Facey and Smith, 1968).

This instigated a follow-up study by Croft which was published by L.O.B. as their third research paper (Croft, 1969). He used Facey and Smith's data, augmenting that with two further interview studies in order to achieve a better understanding of office communications in Leeds. He concluded that types of office differed from each other in terms of the communication patterns generated, so that some offices were more suitable for central locations than others.

In his study, Croft assumes that linkages do influence locational requirements. This would appear to be a justified assumption. Burns has shown that communications take up a large part of an executive's time and play an important role in locational choice (Burns, 1957). The Location of Offices Bureau maintain that firms who ask them for advice on decentralisation, but do not move, remain in central London because of their personal contacts with other businesses. In 1960, Lichtenberg referred to the clustering of offices in central New York as a response to the need of office executives to be in close proximity to sources of information so that if any problems arose, they could be solved quickly and efficiently.

Most of the studies on office linkages in Great Britain have taken place in London. Dunning and Morgan (1971) studied the distribution of office activities and the nature and characteristics of contacts between firms in the City of London. The Joint Unit for Planning Research, directed by Peter Cowan, published 'The Office: A Facet of Urban Growth' in 1969, and from this general introduction on the role of the office function in London have turned their attention to the importance of communications in the locational decision. This links up with John Goddard's work at the London School of Economics and the research in Sweden by Thorngren (1967 and 1970) and Tornqvist (1970).

These research teams have tried to understand the nature, characteristics and patterns of existing information flows so that it would be possible to establish what forms of contact could be maintained by new telecommunication systems. The medium used depends on the nature of the information conveyed. Reid (1971) has analysed the characteristics of these contacts according to the importance of the matter discussed, its complexity, the differentials in authority and knowledge of the participants and their degree of familiarity and conflict. He has also undertaken laboratory experiments on the efficiency of different media on conveying information, varying from the simple comprehension task to bargaining and negotiation tasks.

Simon (1960) distinguished between 'programmed' and 'non-programmed' decision processes. 'Programmed' decisions are routine, structured and standardised, 'non-programmed' decisions are novel, unstructured and complex. Both Goddard and Thorngren identify three basic types of contact. The 'programme' contact is short, one-way, frequent and depends essentially on the telephone. 'Planning' contacts are longer, and are usually between people who know each other. The information flow is two-way and meetings as well as telephone contacts are involved. The 'orientation' contact is more sophisticated and usually brings together groups of people for a planned conference which may be of longer duration than these other cases. At these meetings executives freely exchange ideas and attempt to provide solutions to problems that may face their firm.

In Goddard's recent work on office linkages in central London, information flows were analysed by the use of contact diaries (Goddard, 1973). During three work days, leading personnel recorded all telephone contacts and face to face meetings. This did not include contacts lasting less than two minutes, social calls or contact with members of their own firm. He assumed that firms who had 'programmed' contacts were locationally flexible and should be more susceptible to decentralisation. The 'planning' and especially the 'orientation' contacts would place strong locational constraints on the firm, but he thought that some of these contacts could be transferred to telecommunications.

Central London has been the focus of most research on office linkages, not only because of the importance of business linkages in the capital, but because of the implications of this research on national decentralisation policies. Although Dublin is classified as an intermediate- sized city, Bannon's analysis of the concentration of office activities in central Dublin was an attempt to evaluate the possibilities of certain firms moving out of Dublin to the Provinces.

In this study the emphasis will not be on inter-regional office mobility, but intra-urban mobility within Edinburgh.

Unlike the Leeds study where a postal questionnaire was distributed to all offices throughout the city, the main study here focuses on the central area where a sample of firms is interviewed.

The material collected from the 279 firms interviewed in the central area illustrates the employment structure, the status and the types of office represented in the central area. The intention here is to understand the linkages between firms, especially face to face contacts, which have a geographical impact by attracting and maintaining offices at the city centre.

Although linkage patterns are important, other locational factors, such as the need for a central site or the use of a car in day to day business, are considered. This allows an assessment to be made of the category of office that may be tied to the centre, as opposed to the type of office that may be more amenable to decentralisation.

The re-location areas selected by firms anticipating a move from the central area are plotted and the pattern of distribution is compared to the present distribution of suburban offices. The amount of office space built since the war throughout the city is calculated according to function and location in order to compare past with recent trends.

Having anticipated the type of firm that may move to the suburbs, organisations from these locations were interviewed to ascertain the advantages and disadvantages of a decentralised location. The management ~~will~~ are be asked if they have staff recruitment difficulties, if they have any contacts with the central area and if these linkages have been impaired on moving out of the central area to the suburbs.

A secondary study is undertaken to review current office mobility and the changing land use patterns within the central area. The analysis of recent planning applications, information from estate agents, the tracing of firms through valuation rolls and street directories plus fieldwork, provide most of the data for an evaluation of present market trends in the office market.

Although the approach to this study differs from that of the studies in Leeds and Dublin, comparisons can be made to bring out the role of the office in intermediate-sized cities. Further analogies can be drawn between the conclusions arrived at in Edinburgh, Dublin and Leeds, and those from larger metropolitan centres such as New York and London.

CHAPTER 2.

EDINBURGH AS AN OFFICE CENTRE

Office Employment

The importance of Edinburgh as a service centre when compared to other cities in Great Britain is shown in Tables 2.1 and 2.2. Three quarters of the city's total labour force is employed in service industries. This is considerably more than in Birmingham, Sheffield, Leeds and Nottingham, with only London, Liverpool, Cardiff and Newcastle approaching the Edinburgh figure. 28 per cent of the labour force is employed in the Distributive Trades and Miscellaneous Service sectors,[1.] reflecting Edinburgh's role as a tourist and cultural centre, however, the office sector is well represented in the city, employing 69,000 and accounting for 29 per cent of the total employment. (Table 2.2.) This places Edinburgh fifth among the main provincial centres for numbers employed in 'office' occupations.

The difficulty in comparing office employment in cities in Great Britain is that only a general picture can be given, as the data available do not give information on the number of office employees in different functional categories. The Standard Industrial Classification revised version of 1968 has 27 sectors.

1. Industrial classification sectors XXIII and XXVI, the latter including hotels, clubs, cafes and restaurants.

Table 2.1. Employment Structure of Selected British Cities (1966).

	Primary	Secondary	Tertiary	Quaternary*
Edinburgh	1.3	24.0	74.7	29.0
Glasgow	.3	32.8	66.9	24.8
Birmingham	.9	52.1	47.0	24.4
London	.3	29.5	70.2	35.3
Cardiff	1.0	27.4	71.6	29.7
Bristol	.2	30.0	69.8	27.3
Liverpool	.1	28.9	71.0	27.3
Manchester	.6	35.5	63.9	31.0
Nottingham	1.2	39.5	59.3	23.6
Newcastle	.2	27.9	71.9	30.4
Leeds	.7	40.2	59.1	24.1
Sheffield	.8	48.0	51.2	22.0

Source: Sample Census Occupation and Industry Tables 1966.

* As office occupations cover all 24 Industrial sectors their total cannot be subtracted from the Tertiary total to give a Tertiary/Quaternary subdivision.

Prior to this, there were 24 industrial categories which gave a total of primary, secondary and service employment combined, so only the 'pure office' sectors - XXI; Insurance, Banking and Finance; XXII, Professional and Scientific Services, and XXIV, Public Administration could be used in comparing office employment between cities. On the other hand, the figure given in the 1966 Census for 'office' occupations includes all office workers irrespective of the industries in which they are employed.

Table 2.2. Numbers Employed in 'Office Occupations' 1966.

Centre	Numbers in Office Occupations	Percentage of Total Employment
Greater London	1,528,000	35.3
Birmingham	157,000	24.4
Manchester	122,000	31.0
Glasgow	117,000	24.8
Liverpool	105,000	27.3
Edinburgh	69,000	29.0
Leeds	65,000	24.1
Bristol	60,000	27.3
Sheffield	60,000	22.0
Newcastle	53,000	30.4
Nottingham	43,000	23.6
Cardiff	42,000	29.7

Source: Sample Census Occupation and Industry Tables (1966).

Ian Freeman (1970) identified the predominantly 'office industries' from the Standard Industrial Classification (S.I.C.) as insurance, banking and finance (M.L.H. 860), accountancy, legal and other professional and scientific services (M.L.Hs. 871, 873 and 879); trade associations and business services (M.L.H. 899.6); national government (excluding Armed Forces) (M.L.H. 901.6) and local government (excluding fire and police services) (M.L.H. 906.3). Although this analysis omits employment in offices of manufacturing or service concerns, as well as those of nationalised industries and various other public boards, comparisons can be made between cities by analysing their employment in 'office industries'.

In 1966 Edinburgh employed 36,000 people in these 'office industries', representing 15 per cent of total employment (Table 2.3). This is a proportion approaching that of London (16.7 per cent) and considerably higher than any other provincial city, with Cardiff (13.4 per cent), Newcastle (13.0 per cent) and Manchester (11.6 per cent) the second, third and fourth most important provincial office centres (Table 2.4). Two out of the three major Scottish banks have their head offices in Edinburgh, while seven life insurance companies and one finance company also have their headquarters located in the city. Edinburgh has the highest proportion of employment working in professional and scientific services of all centres and is the largest provincial centre of central government employment. Newcastle with 4.9 per cent of total employment, and Cardiff (4.1 per cent) compare favourably with Edinburgh in relative terms as important central government centres. However, these cities have been

Table 2.3. Employment in Office Industries, 1966.

Group	Numbers	Percentage of Total Employment
Insurance, Banking and Finance	10,800	4.5
Accountancy, Legal and other professional and scientific services	8,700	3.6
Trade Associations and business services	1,400	0.6
Central Government (excluding Armed Forces)	10,100	4.2
Local Government (excluding Police and Fire Services)	5,200	2.2
Total of above	36,200	15.1
Total employment	238,500	100.0

Source: Sample Census Occupation and Industry Tables, 1966.

Table 2.4. Employment in 'Office Industries' 1966.

Centre	Insurance, Banking & Finance		Accountancy, Legal, Other Prof. & Scient. Services		Trade Assocs. & Business Services		Central Gov. (excl. Armed Forces)		Local Gov. (excl. Fire & Police Services)		Total 'Office Industries'		Total Employment	
	(000s)	%	(000s)	%	(000s)	%	(000s)	%	(000s)	%	(000s)	%	(000s)	%
Greater London	255.3	5.9	128.6	2.9	99.8	2.3	135.6	3.1	103.1	2.4	722.4	16.7	4326.4	100
Manchester	19.9	5.1	10.1	2.5	5.1	1.3	5.6	1.4	5.1	1.3	45.8	11.6	393.0	100
Birmingham	17.2	2.7	9.8	1.5	6.2	0.9	5.6	0.8	7.8	1.2	46.6	7.2	646.6	100
Glasgow	13.9	2.9	10.1	2.1	4.6	0.9	5.3	1.1	9.9	2.0	43.8	9.2	473.5	100
Edinburgh	10.8	4.5	8.7	3.6	1.4	0.6	10.1	4.3	5.2	2.1	36.2	15.1	238.5	100
Liverpool	13.0	3.3	5.4	1.4	2.9	0.7	6.7	1.7	6.6	1.7	34.6	8.9	385.4	100
Leeds	8.8	3.2	4.1	1.5	2.5	0.9	4.0	1.4	5.7	2.1	25.1	9.2	270.7	100
Newcastle	5.5	3.2	3.9	2.2	1.5	0.8	8.5	4.9	3.1	1.8	22.5	13.0	172.9	100
Bristol	7.4	3.4	4.3	1.9	1.9	0.8	4.0	1.8	3.5	1.6	21.1	9.6	219.3	100
Cardiff	5.1	3.6	2.9	2.0	1.2	0.8	5.8	4.1	4.0	2.8	19.0	13.4	141.8	100
Nottingham	5.5	3.0	2.9	1.6	1.2	0.6	3.3	1.8	3.6	1.9	16.5	9.1	180.7	100
Sheffield	5.4	1.9	4.1	1.5	1.2	0.4	2.2	0.8	5.1	1.8	18.0	6.6	271.9	100

Source: 1966 Sample Census Occupation and Industry Tables.

office reception centres for government dispersal policies from Central London in recent years, so much of their office employment is accounted for by central government alone. Edinburgh's office employment is relatively well spread out through the 'office industries' identified in the classification. Moreover, Edinburgh's importance as an office centre is probably greater than these comparisons suggest, as cities such as Newcastle, Birmingham and Manchester represent the specialised commercial centres of much larger urban areas.

The Growth of Office Activities in Edinburgh

In attempting to assess the growth of Edinburgh's office activities, further difficulties are encountered because of the various changes in the Standard Industrial Classification. The only sector which has remained unchanged over any length of time is that of Insurance, Banking and Finance. From 1951 to 1966 this sector increased its employment by about 64 per cent in Edinburgh, compared with an increase of about 49 per cent in Great Britain as a whole, and 27 per cent in both Glasgow and Scotland. Although the 1971 Census Industry Tables have yet to be published, the evidence gathered from field work would appear to endorse a high rate of growth, especially in the head office functions of life insurance companies and the banks. Freeman (1970) gives an indication of long term growth by referring to changes in central government employment for the Scottish Office from 1952 to 1966. Two-thirds of Scottish Office staff were employed in the city - employment increasing by 67 per cent during this period. It would appear from these figures that the financial and government sectors have shown the fastest rate of growth in Edinburgh during the post-war period.

However, in recent years employment growth as a whole has been slowing down, with total employment in Edinburgh rising at a slower rate from 1960 to 1968 than the East Central Scotland region and in the United Kingdom as a whole. As can be seen from Table 2.5, employment growth is slower in nearly every sector in Edinburgh compared to its region and the United Kingdom. Two main reasons for this are that there is a lack of available land in the city, especially for industrial use, and, because Edinburgh is not in a Development Area, 'boundary hopping' has taken place from the city to the surrounding areas which qualify for government aid.

This helps to explain the employment growth in towns in the East Central Scotland region such as Glenrothes, Grangemouth, Musselburgh and Dalkeith.

Table 2.5. Employment Growth (Av. Annual Growth in Employment 1960 to 1968).

	Edinburgh	East Central Scotland	Great Britain
Agriculture, Forestry and Fishing	-14.2	-4.9	-4.9
Mining and Quarrying	-5.7	-7.4	-5.5
Manufacturing	-0.8	+1.2	-0.2
Construction	+2.3	+3.4	+1.1
Gas, Electricity and Water	+0.2	+1.4	+1.4
Transport and Communications	-1.6	-0.9	-0.8
Distributive Trades	-1.3	-0.3	+0.2
Other Services*	+1.9	+2.4	+2.5

*Public Administration excluded

Source: Buchanan and Partners: An Analysis of the Problem.

When the 'office industries' were analysed during a similar period (1960 to 1967) by Freeman (1969) the growth of employment in the financial and professional and scientific sectors was similar to the rates of growth in Great Britain for these sectors, and were growing 3 to 3½ times faster than Edinburgh employment as a whole (Table 2.6).

Table 2.6. Changes in the Estimated Numbers of Employees: Selected 'Office Industries': Edinburgh and Great Britain, 1960 to 1967.

	Edinburgh		Great Britain	
	Nos.	%	Nos.	%
Insurance, Banking and Finance	+1,500	+17.9	+115,000	+21.3
Accountancy, Legal and Other Professional	+1,400	+20.2	+65,000	+20.6
Educational Services	+4,000	+37.0	+372,000	+41.7
Distributive Trades	-1,500	-4.5	+43,000	+1.5
Manufacturing Industries	-2,000	-3.3	+93,000	+1.1
All Employees in Employment	+11,400	+5.7	+960,000	+4.3
Non-Industrial Civil Service (excluding G.P.O.)	-	+20.0	+74,000	+20.0
Scottish Office (1961 - 1966)	+1,500*	34.9	-	-

*Estimated

Source: Freeman: Esk Valley Report.

These 'office industries' are increasing in relative as well as absolute importance in the city's economic structure as employment in manufacturing and distributive trades has declined from 1960 to 1967. D.E.P. figures exclude civil service employment, but figures from 'The Abstract of Statistics' imply that the non-industrial civil service as a whole has been achieving a growth rate similar to these growing 'office industries' and it has probably been faster, as Scottish Office figures would appear to indicate.

Post-War Office Building

The pattern of demand for office space in the city would appear to endorse these employment statistics (see Chapter 5 and Table 5.1). The public sector has accounted for nearly two-thirds of all post-war office building, and has provided a stimulus to new development in the city. Much of this new office building has been for owner occupation (head offices in the financial sector) or for leasing to a single occupier (Central Government departments). Nevertheless, professional services have shown a significant employment growth rate. In 1968, professional or general purpose use of office space took up only 4.2 per cent (103,000 square feet) of the total demand, the demand in these sectors being met by conversions to office use (about ½ million square feet in 1968) in the New Town/West End zone of central Edinburgh. From 1968 to 1972, however, there has been a boom in office building in which the professional and general business sector have increased their share of the total post-war demand by about 8 per cent, occupying 457,000 square feet out of a total of 3.9 million square feet. Although most of the professional sector converted premises for office use, all but two small firms in the general business sector, namely construction and manufacturing sales companies, built offices specifically for their own use. M.J. Wright's (1965) work on provincial office centres (excluding Edinburgh) implies that most regional office centres tend to have a lack of purpose-built offices for owner occupation and a high proportion of offices in the multiple use category. Edinburgh differs from provincial cities in this respect.

In attempting to predict future trends in population and employment, the planner treads on wary ground. A change in government or local authority policy can outdate employment projections in planning reports. It is worth noting that the joint consultants of Colin Buchanan and Partners and Freeman, Fox, Wilbur Smith Associates (1972) encountered this before presenting their final report on the transport problems in the city. In two years from 1968 to 1970 the consultants had to review their forecasts because of more recent material made available by the Registrar General and the Scottish Development Department, and recent changes in planning policies and commitments in Edinburgh. It is essential that the possibility of greater employment growth is kept under consideration by the Corporation now that the Buchanan study is completed, so that the recommended plan can be modified if exceptional circumstances should develop.

The new material (1970) estimated an increase in population of the Greater Edinburgh area of 77,000 from 723,000 in 1966. This is 22,000 greater than was first anticipated in 1968 (Table 2.7). The most significant change in the projection is that the population of the area known as 'parts of Midlothian' is now expected to increase more rapidly. The private housing developments which have occurred in the Esk Valley towns and Balerno - Currie are expected to continue, especially with the increasing shortage of housing land in the city. Clearly, these revised population projections are liable to have some effects on the location of employment in the Greater Edinburgh Sub-Region with people in areas of private housing around the city still looking to Edinburgh to some extent for their services. An important change in planning policy also led to the consultants amending their 1968 forecasts. The Secretary of State on agreeing to allow commercial and industrial developments at South Gyle has made available 180 acres - a considerable area in a city that suffers from a shortage of land.

Table 2.7. Population Projections - Greater Edinburgh

(Total population - thousands)

Area	1966	1991 (Estimated 1968)	1991 (Revised)
East Lothian	55.0	63.0	65.0
Parts of Midlothian	93.0	124.0	145.0
Edinburgh City	462.0	438.0	438.0
Greater Livingston	113.0	193.0	192.0
Total = Greater Edinburgh	723.0	818.0	840.0

Source: Paper E.C. 63 of the City of Edinburgh Planning and Transport Study.

Future Trends in Employment and the Distribution of Office Activities

The employment figures forecast for 1991 do not foresee a reversal of the trends of the last decade (Table 2.8). The primary and secondary employment sectors are decreasing in absolute and relative importance at the expense of the tertiary sector. Service employment in the city is expected to account for 78.5 per cent of the total compared to 74.7 per cent in 1966. The 'pure office' categories, S.I.C. groups xxii and xxiv are expanding to such an extent that it is forecast that by 1991 they will employ 37 per cent of Edinburgh's total employment, compared to 28 per cent in 1966. Although the city's employment is only expected to increase by 4,700 (2 per cent) in a 25 year period from 1966 to 1991, these 'office industries' will achieve a growth rate of 30 per cent to 40 per cent during this period. The primary and secondary sectors could have lost more ground to the office sector if the South Gyle site had not been made available for industrial and commercial use. The consultants in their original estimate assumed that employment in Agriculture, Mining and Manufacturing would fall by 10,500,

Table 2.8. City Employment Forecasts

Employment Group	S.I.C. Group	Forecast (000's in employment) 1966	1991	Change
Agriculture, Mining and Manufacturing	i – xvi	60.4	52.4	-8.0 = -13%
Construction	xvii	18.5	13.5	-5.0 = -27%
Gas, Electricity and Water	xviii	4.4	4.5	+0.1 = +2%
Transport and Communications	xix	21.1	15.6	-5.5 = -26%
Distributive Trades	xx	38.4	37	-1.4 = -4%
Insurance, Banking and Finance	xxi	10.8	14.5	+3.7 = +34%
Professional and Scientific Services	xxii	36.9	49.6	+12.7 = +34%
Miscellaneous Services	xxiii	29.2	30.0	+0.8 = +3%
Public Administration	xxiv	18.8	26.1	+7.3 = +39%
Totals		238.5	243.2	+4.7 = +2%

Source: Paper E.C. 63 of the City of Edinburgh Planning and Transport Study.

basing their assumptions on the increasing space demands of industrial production, the exclusion of the city from Development Area status (except Leith) and the shortage of land in the city for industrial development. However, the latter factor has been considerably affected by the South Gyle amendment which expects to result in about 2,500 jobs in manufacturing, together with some employment in wholesale distribution. It is possible that a change of policy can take place in the next few years with regard to Edinburgh's position in government regional policy. Edinburgh Corporation maintains that thousands of jobs have been lost, either because the city is not a Development or Intermediate Area, or because firms have been moving out to areas which receive government assistance. If this pressure group can put forward a good case, backing it up with unemployment figures, changes may take place in the near future, which may cut the extent of the forecast decline in manufacturing industries for 1991.

Employment in service industries in Edinburgh is not affected to the same extent as manufacturing industry by physical restraints of land alone. Service industries are related essentially to the size and location of population and also to other industries. Although the population of the city is expected to fall by 1991, the towns in the surrounding area will expand considerably, but the population will look to the city for much of their services. Net commuting is forecast to increase from 23,000 in 1966 to 46,000 in 1991, so much of this work force will be orientated to using services in the city during their working day as opposed to utilising their services in their home town. The 'office industries' are heavily concentrated in the capital, so it is unlikely that this concentration will change. Nevertheless, the South Gyle amendment will alleviate the problem of lack of space for one insurance company and other professional and financial firms may follow this firm's example now that the land is available for development. Already, during the office boom of the 1960's in Edinburgh, the distribution of office activities has become more widespread replacing the old pattern of a heavily concentrated office centre with little or no developments in the suburbs.

Edinburgh is one of the most important provincial office centres in Great Britain. Although never an important employer in primary and manufacturing industries, these industries, along with well established service industries such as Distributive

Trades and Miscellaneous Services, have been decreasing or stabilising in numbers as the 'office industries' increase their absolute and relative importance in the city's economy. Buchanan and Associates justifiably assume that these trends will be accentuated in the next twenty years. Indeed, if Edinburgh is chosen as one of the four or five office reception centres for civil service employment from London, exceptional growth in employment and population would result; much greater than the consultants had predicted for 1991.

CHAPTER 3

THE STUDY

Part I

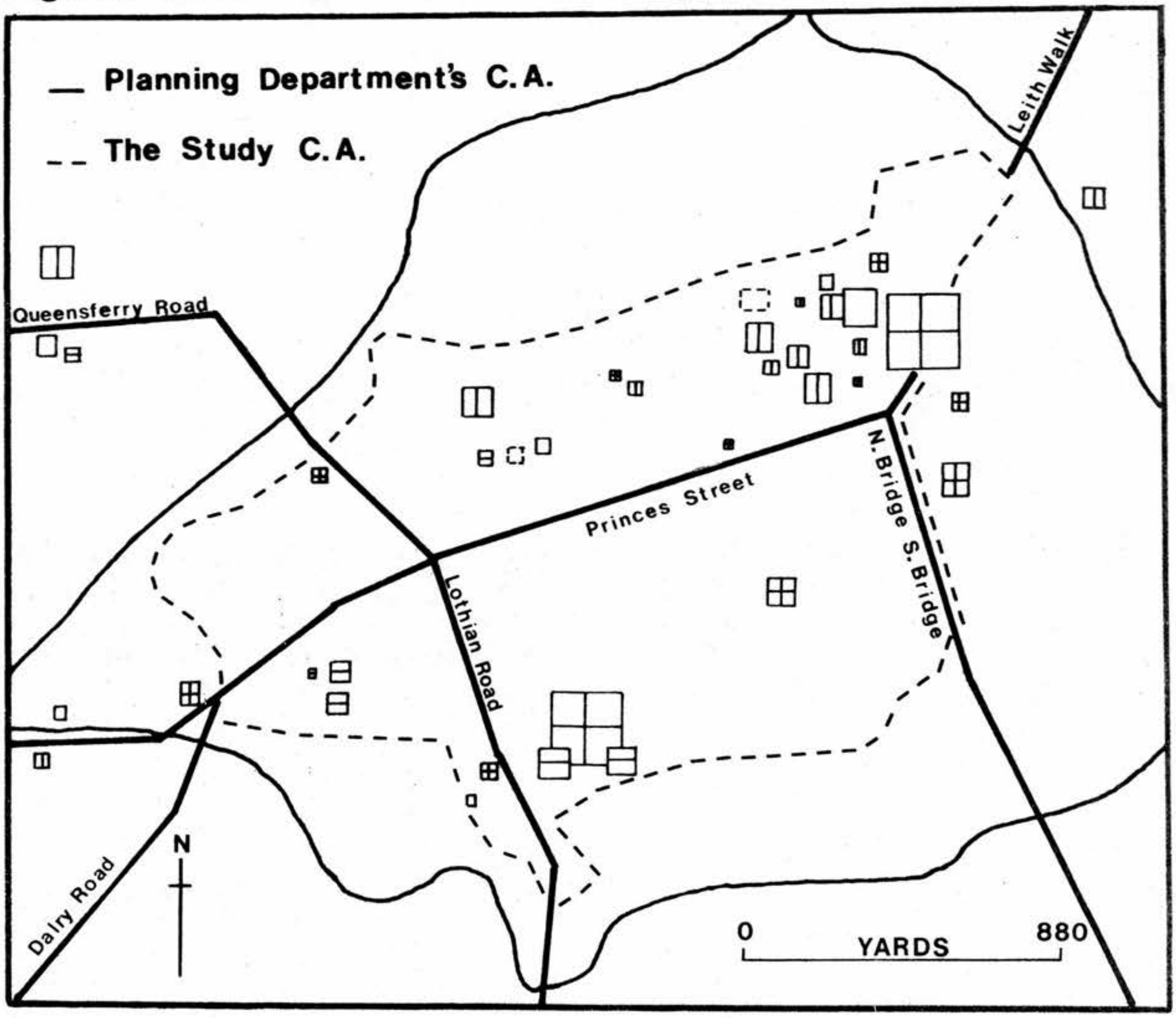
Representatives[1] from 279 offices located in central Edinburgh were interviewed as a sample to evaluate the underlying factors which attract and maintain offices at the city centre. They answered a questionnaire (Appendix 1) designed to examine the links between firms and the types of communication used in the formulation of contact patterns.

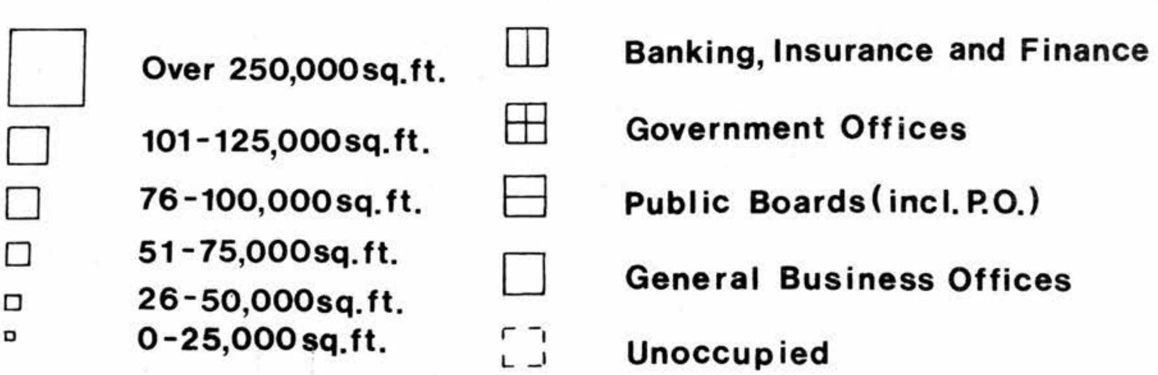
The Study Area

Calculation of the size of sample and the definition of the study area were based on material collected from street directories, valuation rolls and fieldwork. The central area in this study is much smaller than the area delineated by the Town Planning Department (Fig. 3.1) which includes peripheral zones that are almost totally residential in character. The area chosen was delineated on the basis of office and shop predominance. The core of the central area is characterised by office agglomeration although the high quality shop is the prominent form of land use along key arteries, such as Princes Street and Queensferry Street.

1. The personnel interviewed were senior office staff either responsible for, or knowledgeable of, policy decisions taken within the firm.

Fig. 3.1 Post-War Office Building in Central Edinburgh





This zone corresponds to the central commercial zone defined by Buchanan and Partners in their first report on downtown transportation, 'An Analysis of the Problem' (Buchanan, 1971).

Redevelopment has occurred throughout the central area, but the larger office developments have been confined to the fringe of the C.B.D. because of planning controls which restrict the size of buildings that can be constructed in the core of the central area[2]. The east end of the central area has experienced a period of office redevelopment with the completion of the St James' Centre (300,000 square feet of office space for the Scottish Office) and the rebuilding of St Andrew Square and East George Street by the banks and insurance companies.

The smaller office users have been taking over residential property in the West End and in the New Town so the boundary line for the north and west was delineated on the basis of the office being the dominant type of land use. To the north of Heriot Row and west of Palmerston Place, office developments have

2. The Corporation (1968) stipulates that new buildings must conform to the layout and townscape of the other buildings in the central area, especially with regard to height in the New Town and the Royal Mile.

taken place colonising parts of the residential neighbourhood without becoming the dominant form of land use in these areas.

To the south and east of Princes Street, the office loses its importance as the dominant form of land use to the retail function. However, most of the local government offices are located in this area and new office blocks have been constructed, or are in the process of being constructed, in areas adjacent to major shopping zones. Consequently, the south and west boundary line was drawn to include these developments.

Office Definition

Facey and Smith (1968) define an office as an establishment in which no-one was engaged in non-office work. This was considered to be too rigid a definition as many offices, especially larger offices, employ staff that would be considered as non-office staff (see Appendix 3 for the definition of 'office occupations'). The Offices, Shops and Railway Premises Act 1963 states that 'office premises' are occupied by office establishments in a building whose principal use is as an office or for office purposes. This is a more flexible definition and is the one used throughout the study. The Act states that a 'retail outlet' is where members of the general public can obtain articles for their own personal use. The enumeration of all office premises within this central area provides only one difficulty - the classification of office equipment dealers into the office, instead of the retail category. In terms of space, office equipment dealers and other firms who have showrooms displaying their goods have much of their total floor area devoted to storage use. They also sell directly to the public. However, 90 to 95 per cent of the business of these firms was of an office nature. In general, representatives would order a specific number of articles from the exhibits displayed. The firm would then deal with the administration part of the sale - the order being forwarded to the main warehouse for delivery.

The Scope of the Survey

The data collected in the survey came from three sources: the estate management and establishment divisions of central and local government organisations, a selection of firms who were considered to be too important to be omitted from the survey and a random, stratified sample of the remaining firms located within the central area. With the exception of government departments, all the offices were categorised into fourteen functional groups comprising '<u>Finance</u>', embracing finance companies, investment trusts, building societies and stockbrokers; <u>Insurance companies and brokers</u>; '<u>Property</u>', which includes estate agents, developers, valuers and factors; The '<u>Legal Profession</u>'; '<u>Accountancy</u>'; '<u>Other Professional</u>' including architects, surveyors and engineers; '<u>Manufacturing</u>', including office supplies, whisky merchants; '<u>Construction</u>'; '<u>Travel Agents</u>'; '<u>Business Services</u>' - duplicating, xeroxing, typing and the newspaper industry; '<u>Associations</u>', embracing councils and societies as well as associations; '<u>Advertising</u>'; '<u>Government Boards</u>' as well as quasi-governmental organisations and '<u>Banks</u>'. Central and local government departments were not included in the sample. Other interviews were conducted with key personnel responsible for the management of government property, so that an evaluation of the government's importance in Edinburgh's office structure could be assessed.

Activities Excluded from the Stratified Random Sample

Some firms were exempt from random sampling because of employment or locational characteristics. These offices were, in some cases, head offices for major companies employing large labour forces, for example, some insurance companies employ a staff of over a thousand. Clearly, any move by any of these firms would be more significant than a move by any other firm in the same functional group. The aggregate labour force for the 'Finance' sector does not reach the total for the numbers employed in the headquarters of a finance company - a firm that decentralised only four years ago. Other offices coming into this category are firms that are located away from the main zone of office concentration, but are still within the confines of the defined central area. For example, only a few legal firms out of a total of 184 within the central area are located south of Princes Street. By examining these offices, an assessment of the advantages or disadvantages of their situation can be made on comparing their location with that of other legal offices in the main professional zone.

Three functional groups were exempt from the random sample, 'Banks', 'Travel Agents' and 'Government Boards'. As there were so few travel agents or government boards within the central area, all of these organisations were interviewed. Some of these government boards are major employers in central Edinburgh, while travel agents are important in that they are not located in the main office zone, but in the major shopping zones. The bank offices in central Edinburgh are so numerous that most interviews in this sector were conducted with managers responsible for head office departments within the Bank of Scotland and the Royal Bank of Scotland Limited. The changing locational patterns of bank office activities could then be analysed by studying the internal structure of these organisations. All of the merchant banks, the foreign banks, the Edinburgh Trustees Savings Bank and the chief office for the Clydesdale Bank were also visited.

The Structure of the Sample

The survey population for the random sample was 969. As there are unequal population sizes between the various strata, in order to achieve the same degree of accuracy different sample fractions were required (Table 3.1a). Therefore, the strata with the highest weighting within the sample have the lowest proportion of unit sample (Appendix 4).

Sampling Technique

The next stage in the sampling procedure was to take a random sample within each strata based on the required sample size. For example, in the 'Legal Profession' sector each of the 184 offices were assigned a number and this was used to indicate a given office's position within the sampling frame. As with all strata, there was no real order within the frame so that the effective sample was truly random. Individual units were selected using random number tables. In addition to the required sample size, to allow for coverage changes, extra units in each stratum were made at the time of sampling.

Coverage and Response

One measure of the success of sample survey fieldwork is the ability of the research to minimise the biases of non-observation resulting from non-coverage and non-response. Coverage errors could occur because of the inadequacies of the sampling frame. There were three main forms of coverage error encountered in this study - the 'gone aways', the vacated premises and the inadequate address. The sampling term 'gone aways' refers to offices which were occupied by new inhabitants. Vacated premises are properties that have been vacated or demolished before the research could be carried out. An inadequate address was encountered when a different firm from the expected one was located at an allocated location. This could occur because of misinterpretations of valuation rolls or street directories. Non-coverage was not a serious problem. Out of the total number of premises visited, only nine came into this category. Replacements for these premises were taken from the extra units which had been sampled for this purpose.

Non-response

The basic requirement for any study is to control this factor since non-response arises from a failure to obtain observations from some units selected. Steps were taken to aid response. Three months before the fieldwork was due to start, a luncheon was held at the University to which many of Edinburgh's eminent businessmen were invited to attend. The aims of the study were revealed and the businessmen agreed to notify firms in their profession who were listed for interview about the study and that interviewing was about to begin. Interviews were scheduled for a minimum duration of thirty minutes. If, on visiting an office, contact was not made as expected, arrangements were made for a re-call. Consequently, in view of these special efforts to aid response, non-response was virtually eliminated. Co-operation was refused on only two occasions and to allow for this, replacements were taken from the reserve list. Therefore, the achieved sample size was equal to the required sample size.

The total number of offices visited is shown in Table 3.1b. This combines the offices in the random stratified sample (231) with the 48 firms that were selected for interview. The

Table 3.1a. The Structure of the Sample.

Functional Group	No. of Offices N	W (% of total)	Size of Sample n	Sampling Fraction $= \frac{n}{N} \times 100 (\%)$
Legal Profession	184	19	26	14
Associations	172	18	26	15
Other Professional	112	12	24	21
Insurance	96	10	23	24
Manufacturing	78	8	22	28
Finance	77	8	22	26
Construction	72	7	21	29
Accountancy	71	7	21	30
Business Services	59	6	20	34
Property	33	3	16	49
Advertising	15	2	10	67
11 Groups	969	100	231	24

Table 3.1b. The total number of offices visited by functional group was as follows:

Finance	22
Insurance	26
Property	17
Accountancy	21
Legal Profession	28
Other Professional	24
Manufacturing	25
Construction	21
Business Services	20
Travel Agents	7
Advertising	10
Associations	26
Government Boards	12
Banks	18

overall sample fraction is higher than that for the stratified random sample. Therefore, 27 per cent of the firms in the central area were interviewed (excluding local and central government departments).

The results of the study will be outlined throughout the remainder of this chapter and in chapter 4. It should be emphasised that the information relates to the sample - no attempt has been made to estimate the parameter for the total population unless otherwise stated.

Employment Structure

Because of Edinburgh's capital status, it is not surprising that most of the office population in the sample are employed in the financial, governmental and professional sectors. 'Insurance' (4,381) and 'Government Boards' (2,280) take a considerable percentage of the total of 11,635 (Table 3.2). 7,500 people are employed as secretaries or clerical workers (5,000 of ~~which~~ whom are female). The professional (1,800) and managerial (842) classes are the nearest to approach these figures.

Table 3.2. Number of Employees by Sector.

	Male	Female	Total
Finance	179	124	303
Insurance	2,202	2,179	4,381
Property	81	86	167
Legal Profession	187	281	468
Accountancy	397	231	628
Other Professional	379	77	456
Manufacturing	164	117	281
Construction	267	201	468
Travel Agents	75	99	174
Business Services	430	575	1,005
Advertising	120	98	218
Associations	122	172	294
Government Boards	1,306	974	2,280
Banks	256	254	510
Total	6,165	5,468	11,633

Nature of Office

There is an even number of firms of a head office, branch office and 'only' office status which provides further evidence of Edinburgh's unique office character (Table 3.3).

Few cities of an equal size contain such a high percentage of head offices (27.2 per cent). These include the head offices of two Scottish banks and seven insurance companies which have their national headquarters here. This probably explains why most firms serve Scotland as an area (41 per cent) with a smaller proportion covering Edinburgh, the U.K. or the local region (Table 3.4).

Table 3.3. Status of Office.

	Head Office	Branch Office Responsible for Other Offices	Branch Office Independent	Only Office
Finance	2	3	12	5
Insurance	7	6	13	2
Property	3	-	9	5
Legal Profession	-	-	-	28
Accountancy	2	-	5	14
Other Professional	3	-	6	15
Manufacturing	3	2	16	4
Construction	5	2	8	6
Travel Agents	2	-	4	1
Business Services	3	2	8	7
Advertising	4	-	2	4
Associations	20	-	2	4
Government Boards	10	1	1	-
Banks	12	1	4	1
Total	76	17	90	96

Table 3.4. Area Served by the Office.

	Edinburgh	Region	Scotland	U.K.	Overseas
Finance	2	8	5	3	4
Insurance	2	17	2	7	-
Property	3	3	11	-	-
Legal Profession	8	6	10	4	-
Accountancy	3	9	6	3	-
Other Professional	3	9	8	4	-
Manufacturing	-	9	10	3	3
Construction	2	7	11	1	-
Travel Agents	1	3	-	2	1
Business Services	5	6	6	1	2
Advertising	1	-	9	-	-
Associations	3	2	17	1	3
Government Boards	1	3	7	1	-
Banks	2	-	14	1	1
Total	36	82	116	31	14

The firms employing the greatest numbers of staff have been established in Edinburgh for many years (compare tables 3.2 and 3.5). With the possible exception of new bank head office departments and the occasional quasi-governmental organisation, most firms have been located in the city for 50 years or more. The newer additions, such as firms in the 'Construction', 'Business Services' and 'Other Professional' sectors have not had a profound effect on employment patterns in the city. (As 696 people are employed by the 'Scotsman', an established newspaper in Edinburgh, the employment figure of 1,005 for the 'Business Service' sector is deceptively high.)

Table 3.5. Age Since Established.

	Pre-45	45-59	Since 1960
Finance	10	7	5
Insurance	22	1	5
Property	5	5	7
Legal Profession	23	3	2
Accountancy	18	1	2
Other Professional	10	4	10
Manufacturing	13	5	7
Construction	4	6	11
Travel Agents	5	1	1
Business Services	6	2	12
Advertising	4	4	2
Associations	16	7	3
Government Boards	7	4	3
Banks	6	2	10
Total	149	52	78

Character of Office Accommodation

The conversion of houses, hotels and shops has resulted in the outward expansion of the central area and the movement of the majority of the firms in the 'Accountancy' and 'Other Professional' categories to the edge of the central area. Most offices are accommodated in buildings of a Victorian age, with only 19 out of 279 firms in offices constructed since 1950. It was the larger organisations who had these offices built for their own occupation (seven out of nine insurance companies, and five out of six bank departments). A large accountancy firm and Midlothian County Council had the building constructed for their own specific use, while two smaller firms (in 'Business Services' and 'Advertising') only leased these premises.

Methods of Communication Used

By analysing the main methods office personnel use to contact each other it is possible to ascertain the proportion of their business which is conducted at, or away from the office, if face to face contact is essential, and what means of communication is used in these offices. Face to face contact was not the __main__ method of contact used for business purposes (Table 3.6). Phone or letter accounted for 47 per cent, visiting away from the office 28 per cent, and at their own office 12½ per cent (12½ per cent could not differentiate among the three). 'Insurance','Manufacturing' and the 'Advertising' sectors all registered zeros in the column 'visiting your office'. All these firms have a sales force, inspectors or representatives, so that their work takes them away from the office. Nevertheless, these figures can be misleading, as all the branch offices of insurance companies have to be visited to some extent. So, in many cases communication patterns depend to a great extent on the status and type of office concerned. Only 'Business Services', legal firms and, to a lesser degree, accountancy firms, gave a high rating to being visited. Even then, most of their business was carried out by phone or letter. Firms in the 'Other Professional' category were finely balanced between visiting away from the office or phoning and writing (much of their work being carried out on the site itself). All other groups were essentially phone users.

Table 3.6. The Main Method of Contact Used.

	They Visit Your Office	You Visit Them	By Phone/ Letter	Cannot Differ-entiate
Finance	1	7	10	4
Insurance	-	16	10	2
Property	3	3	9	2
Legal Profession	9	2	16	1
Accountancy	4	5	10	2
Other Professional	1	11	11	1
Manufacturing	1	16	8	1
Construction	2	1	12	6
Travel Agents	4	-	3	-
Business Services	6	6	7	1
Advertising	-	5	3	2
Associations	2	4	14	6
Government Boards	1	1	6	4
Banks	2	1	12	3
Total	35	78	131	35

Methods of contact used by office staff in the week preceding the interview were recorded in question 22 of the questionnaire. Face to Face contact, postal service and telephone were used by over 90 per cent of the offices.

Only 'Banks' and 'Insurance' were significantly below average because their headquarters had no personal contact with clients. 'Manufacturing' firms also had a low rating because contact at their offices was unnecessary. Private messenger was used by 39 per cent of the firms to contact clients, 36 per cent to contact other firms. This figure varied according to type of firm. For example, lawyers, accountants and government boards used this method of communication frequently, manufacturing offices very rarely. Railway Parcel Service was unpopular (20 per cent using it to contact clients, 10 per cent to contact other firms) with advertising agencies using this service the most (about 70 per cent of them). The direct line telephone was installed in very few of the offices visited (4 per cent using it to contact clients, 9 per cent for other firms). The type of firm utilising this service was the office who which needed up to date information in its business (newspaper industry, travel business and the investment trusts). The private line was installed more frequently as an internal means of communication. 19 per cent of the offices had a private line to office blocks of their own organisation. The more recent and sophisticated means of communication (telex and teleprinter) are becoming increasingly important in communication patterns (16 per cent to contact clients, 9 per cent to other firms). With increasing emphasis being placed on verification of recent conversations in type, telex has been employed in most of the larger organisations (banks, government, insurance and investment) as well as in travel agencies. The installation of new forms of telecommunication was only being considered by 8 per cent of the firms interviewed. Again this was confined to the financial sector, with banks, investment trusts and insurance companies hoping to install closed circuit T.V., facsimile transmission, and other up-to-date communication devices.

Characteristics of Face to Face Contact Patterns

The amount of face to face contact office personnel had with each other was a good indicator of how important linkages were in tying firms together in the central area.

The value of face to face contact is at the heart of this study. A representative from each firm was asked the strength of the firm's contact with other firms, including offices in its own functional group (see Appendix 1, question 23). A daily contact scored 60 points, weekly 50, monthly 40, down to 'no contact' at 10 points. Each functional category was coded for computerisation, for example, Variable 096 was 'Customer/ Clients', 097 - 'Competitors', 098 - 'Finance', through to 117 for 'Hotels and Clubs'. The average contact score for each variable could then be found. For example, in table 3.7 the figure of 34.0 for 'Finance' is the mean pointage of the 279 firms in the sample.[3] The results from this study are similar to those obtained by M.J. Bannon (1972) in Dublin and M. Facey and G. Smith (1968) in Leeds. 'Customer/ Clients', 'Banks' and the 'Legal Profession' are the three most frequently contacted groups in both studies. The five leading groups in this study are the same as those found by Bannon in Ireland. At the other end of the scale similar types of functional groups with limited face to face contact patterns are found in all these studies.

3. These basic statistics were calculated by using the computer programme, a Statistical Package for the Social Sciences (S.P.S.S.). In the above example, the mean, mode and standard deviation could be given for 'Finance' (variable 098).

Facey and Smith (1968) classified these firms as Infrastructure firms (that is, those with service offices). In Edinburgh these offices also gain a low score.

Table 3.7. Face to Face Contacts (Every Firm Equated with 278 Others).

Customers/Clients	56.6
Banks	50.8
Legal Profession	40.5
Competitors	39.0
Other Professional	37.3
Insurance	36.4
Office Suppliers	36.2
Accountancy	35.5
Central Government	34.9
Local Government	34.6
Travel Agents	34.5
Finance	34.0
Construction	30.7
Associations	30.6
Business Services	28.3
Manufacturing, Property	27.4
Advertising	24.1

Table 3.7 was based on average contact scores for each variable. This does not give any indication of variations that may exist within these groups or of the breakdown of contacts according to frequency, for example, the amount of daily contacts that were recorded from all possible contacts. As there are 279 offices in the sample and eighteen variables are identified, it is possible to have a network of 5,022 face to face contact patterns. The category 'no contact' was mentioned with the highest frequency, although over half the total contacts were at least in the monthly or more frequent categories (Table 3.8).

Table 3.8. Face to Face Contact Frequencies as a Percentage of the Total.

Frequency of Contact	Percentage
Daily	17
Twice/three times weekly	2
Weekly	15
Fortnightly	3
Monthly	16
Quarterly	8
Annually	5
Irregularly	11
No Contact	23

In order to emphasise variations that may exist within these functional groups, another table was drawn up (Table 3.9) based on the number of contacts per annum.

Table 3.9. Face to Face Contacts/Annum by Functional Group.

	Score	Percentage of Total
Customers/Clients	59,784.5	20
Banks	42,593	15
Legal Profession	30,561.5	10
Competitors	18,858	6
Central Government	18,249	6
Other Provessional	15,624	5
Finance	14,420.5	5
Insurance	13,692.5	5
Local Government	12,151.5	4
Construction	11,531.5	4
Accountancy	9,611.5	3
Office Suppliers	9,013.5	3
Business Services	7,574	3
Travel Agents	6,791.5	2
Associations	6,407.5	2
Manufacturing	6,118	2
Property	5,533.5	2
Advertising	4,867.5	2

The total for each of the groups was based on the assumption that there are 250 working days in a year. Daily contacts were multiplied by 250, twice to three times weekly by 125, weekly by 50, down to irregularly (0.5) and 'no contact', which registered a zero.

293,383 face to face contacts were made by the 279 firms in a year. As in Table 3.7, 'Customers', 'Banks', and the 'Legal Profession' were the functional groups that were most frequently contacted. Both tables are very similar. The ranked order of functional groups are identical at either end of the scale. 'Central Government' improved its position in Table 3.9 because of the nature of its contacts. Just under 40 per cent of the government's contacts were irregular, or non-existent, but 20 per cent of its contacts were of a daily nature, the fourth highest group involved in everyday contacts, after 'Customers', 'Banks' and the 'Legal Profession'. 'Finance's' higher position can be explained by the variance that occurs within the group - building societies having daily to weekly contact patterns, investment trusts having very little contact whatsoever.

Every firm was allotted a case number between 1 and 279. Firms were coded according to functional group, for example, 'Finance' covered case numbers 1 to 22, 'Insurance' from 23 to 50. Therefore, linkage patterns could be studied by analysing the amount of contact each functional group had with the others. Table 3.10 shows the mean contact score for these functional groups. For example, the figure of 42.4 for the 'Legal Profession' is arrived at by averaging the 28 legal firms' contact with variables 096 to 113. The variables are ranked according to the importance of their linkage with the legal profession (see Table 4.4 in chapter 4). The average value of the eighteen variables was 42.4. Table 3.10 differs markedly from Table 3.7. 'Advertising', 'Property', 'Travel Agents' 'Business Services' are near the top of Table 3.10, but they are far down Table 3.7. 'Travel Agents' and 'Business Services' are located in the centre of town to serve the business community. Therefore, they have strong linkages with all businesses in the centre of Edinburgh. This accounts for their high positions in Table 3.10. However, when representatives from

Table 3.10. Face to Face Contact (by Sector).

Legal Profession	42.4
Advertising	40.9
Travel Agents	39.7
Accountancy	38.8
Property	37.6
Government Boards	37.2
Other Professional	37.0
Business Services	35.0
Associations	34.6
Insurance	34.4
Construction	34.3
Finance	31.7
Manufacturing	30.1
Banks	28.9

all of the 279 firms were asked their strength of contact with this type of firm, the mean contact score was low because this type of service is not required frequently by individual firms, for example, lawyers from five different firms may visit a travel agency in one week, yet each lawyer may only visit the travel agency once a month. 'Advertising' and 'Property' firms were also irregularly used by firms in the central area, yet they considered themselves to have strong linkages with most business concerns. This paradox is evident to some extent in all functional groups. The position is reversed with the 'Insurance' sector. Other firms in central Edinburgh have strong contacts with insurance companies (Table 3.7), but they, in turn, do not consider themselves to have important linkages with other businesses in the city (Table 3.10).

In order to receive a better picture of these contacts and with whom they were being made, a diagram of the central office district was constructed according to functional group on the basis of face to face relationships. On scrutinising the face to face contact patterns of each of the functional groups (Tables 4.1 to 4.14), monthly face to face contact was taken as the least amount of contact required between firms for their necessity to be located close to each other. In most of these tables there is a distinctive break between contact scores in the forties from those in the thirties.

Most functional groups with contact scores in the thirties had few face to face contacts (varying between eight times a year to once a year). This was considered to be insufficient contact for firms to be in locational proximity to each other within the central area. A systematic analysis was undertaken of tables 4.1 to 4.14. Each functional group's linkages with the others were plotted (that is, those with a score of 40 or over) until a mesh of one-way and two-way contacts was formed. In figure 3.2 each functional group was drawn according to its face to face contact with other groups. Therefore, functional groups on the periphery of the diagram had fewer face to face contacts than those in the centre. A hypothetical central area was drawn based on these contact patterns. The professional sectors dominate the central core because of their intensity of face to face contacts, while 'Construction', Manufacturing' and the 'Association' sectors are located on the outer edges of the diagram.

Other Locational Requirements

To verify these contact patterns, the interviewees were asked if their office had to be located close to any other

Fig.3.2 The Central Area based on Contact Patterns

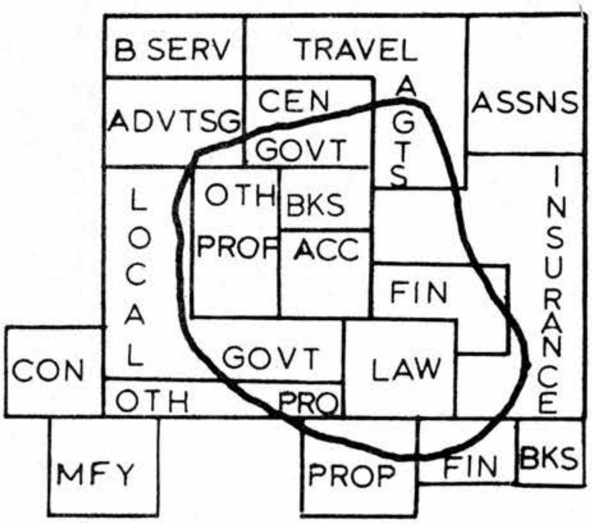
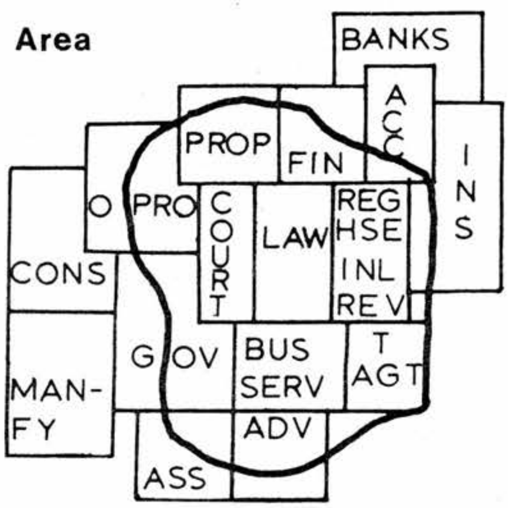


Fig.3.3 The Central Area based on the Necessity of a Central Site

— Hypothetical Central Area



Not Drawn to Scale

organisation for the efficient running of the business. Secondly, they were asked if there were any factors which made it essential for their business to be located in the central area.

Table 3.11. Necessity of Face to Face Contact.

	Percentage
Legal Profession	82
Travel Agents	71
Business Services / Property	65
Other Professional	62
Advertising	60
Construction	52
Government Boards	50
	(mean) 49
Finance	46
Associations	42
Manufacturing	36
Accountancy / Banks	33
Insurance	32

49 per cent of the office staff in all firms thought that face to face contact was essential with other firms in the central area. (Table 3.11.) Lawyers, 'Travel Agents', 'Business Services' and 'Property' were significantly above this figure (65 per cent), while 'Banks', 'Insurance', 'Accountancy' and 'Manufacturing' were well below average (36 per cent and less). Table 3.12 shows the sectors in order of necessity on having a central area location. This table is similar to that of Table 3.11 with the exception of the 'Insurance', 'Other Professional' and 'Construction' categories. The latter two have linkages with other firms in the Central Area (C/A), but do not have to be located centrally. 'Insurance' has the lowest rating for locational proximity to any other firm, but a high value on the necessity of a C/A site.

A diagram was constructed based on Tables 3.11 and 3.12. Figure 3.3 was drawn according to functional groups face to face contacts with other firms and their necessity to be located in the central area (see questions 24 and 27A of the questionnaire in Appendix 1). When figures 3.2 and 3.3 are compared, notable differences are recognisable. The 'Legal Profession' depends on the Courts and Register House so it is included in the core of the central area. 'Business Services' and 'Travel Agents', located on the periphery in Figure 3.2, are located within the central area in Figure 3.3. This paradox is similar to that found in Tables 3.7 and 3.10 when discussing contact patterns. 'Manufacturing' and 'Construction' were once again confined to the periphery.

The conclusions that can be drawn from the methods of communication used between firms and their effects on possible decentralisation are fairly clear cut. Office personnel who work away from the office and are predominantly phone users, do not have to be located in the C/A. Similarly, personnel who have few 'personal' links with staff in other firms and do not think they have much justification for being in the centre would also be candidates for moving out of the centre. The functional groups who could come into this category are the 'Manufacturing' and 'Construction' sectors, certain elements of the insurance and banking profession, and to a lesser extent the 'Other Professional' category. Firms in the latter sector have no need to be located in the centre yet their personnel work away from the office and they have strong personal 'links' in the centre with staff in other firms.

Table 3.12. The Necessity for a Central Location.

	Percentage	
Travel Agents	100	
Government Boards	100	
Legal Profession	93	
Property	88	
Insurance	82	
Advertising	80	
Business Services	80	
Accountancy	76	
		73 (Mean)
Associations	69	
Finance	65	
Banks	61	
Other Professional	58	
Construction	52	
Manufacturing	44	

The Demand for Office Space and Office Mobility

Tables 3.13 and 3.14 show staff changes in the last ten years and predicted changes in the next five years. Although these figures appear to reflect substantial increases in employment, the market for office space can be more thoroughly examined by explaining these tables in more detail. It would appear that 'Banks', 'Travel Agents', 'Other Professional', and the 'Legal Profession', because of their lack of 'decreases' recorded, had shown the greatest increases in office staff. With the exception of new labour intensive bank departments (Registrar, Computer) and the larger of the travel agents, most of the others, although showing increases, will not affect the market demand for office space, as these increases are only of relative and not absolute importance. The 'Insurance' sector is by far the most important in creating a demand for office space; for example, selected firms have increased their employment from 300 to 1,045 (250 per cent increase), 300 to 1,105 (270 per cent), 183 to 283 (55 per cent) and 90 to 282 (210 per cent). Yet two offices have shown substantial decreases in employment (600 to 150 and 150 to 97). Of the other sectors, most staff changes were fairly insignificant. Advertising agents generally had notable increases (15 to 56, 25 to 35, 6 to 17). Of the remainder, some 'Accountancy' firms and 'Business Service' offices had marked increases, ('Accountancy' 23 to 69, 35 to 60, 17 to 49, 'Business Services' 5 to 40, 28 to 56 and 1 to 15) while two 'Government Boards' showed significant decreases (481 to 431 and 105 to 65).

Expected Staff Changes

It is likely that there will be a demand for more office space in the next five years. Most representatives for these offices thought that their staff changes would be minimal and even those who forecast an increase in staff specified that increases would be fairly small. Once again it was the 'Insurance' sector, because of its size, that was demanding most of the office space (the two largest firms hoping to increase from 1,045 to 1,500 (43 per cent) and 1,105 to 1,750 (58 per cent). 'Government Board's' staff changes were difficult to predict because of policy, but some, notably the National Coal Board and the Herring

Industry Board, could have substantial decreases in employment. The Registrar and Computer departments of the banks' head office could still create a demand for space at St. Andrew Square, while Local Government's offices

Table 3.13. Staff Changes in the Last 10 years.

	Increase	Decrease	No Change
Finance	12	6	4
Insurance	15	6	7
Property	5	3	9
Legal Profession	15	2	11
Accountancy	12	6	3
Other Professional	8	5	11
Manufacturing	7	5	13
Construction	10	3	8
Travel Agents	5	-	2
Business Services	7	2	11
Advertising	7	3	-
Associations	15	3	8
Government Boards	8	3	1
Banks	12	-	6
Total	138	47	94

may show a decrease in employment due to the reorganisation of the system. However, most of the demand is for small to intermediate-sized offices (small suites in new office blocks or converted premises) with the 'Accountancy', 'Other Professional', 'Associations' and 'Business Services' sectors creating the greatest demand ('Business Services' may have notable decreases in the newspaper industry, nevertheless).

<u>Table 3.14</u>. <u>Anticipated Staff Changes in the Next 5 Years</u>.

	Increase	Decrease	No Significant Change
Finance	8	-	14
Insurance	11	-	17
Property	6	-	11
Legal Profession	4	-	24
Accountancy	15	-	6
Other Professional	11	-	13
Manufacturing	5	1	19
Construction	8	-	13
Travel Agents	2	-	5
Business Services	12	3	5
Advertising	4	-	6
Associations	11	1	14
Government Boards	2	3	7
Banks	7	1	10
Total	106	9	164

Firms Showing Previous Mobility

In the last twenty years 44 per cent of the firms had moved premises. Firms in the 'Legal Profession', 'Accountancy', 'Construction' and 'Banking' sectors had the least mobility, while those in the 'Property', 'Manufacturing' and 'Other Professional' sectors showed most movement (Table 3.15). Overall, most of the moves to the present location were over short distances, often less than a hundred yards. In the property field the larger firms were moving into George Street from the West End whereas the smaller independent, factorial and valuation firms were moving from George Street to less prestige sites in neighbouring streets. The 'Insurance' sector revealed much variety - the larger companies moving very short distances, the brokers and specialised insurance companies (friendly societies) moving further away from the core of the central area to the periphery. In the 'Finance' sector, investment trusts and companies were moving from the main Central Business District zone to the north-east periphery and building societies were moving from west to east George Street. 'Accountancy' firms confirmed the professional movement from the main C/A zone by giving up prestige sites and moving north into the peripheral

Table 3.15. Office Mobility in the Last 20 Years and the Reasons for Moving.

	Fin	Ins	Prop	Law	Acc	Op	Mfy	Con	Ta	Bs	Adv	Ass	Gov	Bks	Total
Firms who have moved	9	13	10	8	7	13	14	7	3	10	6	13	4	6	123
Firms who have not moved	13	15	7	20	14	11	11	14	4	10	4	13	8	12	156
Reasons	**Fin**	**Ins**	**Prop**	**Law**	**Acc**	**Op**	**Mfy**	**Con**	**Ta**	**Bs**	**Adv**	**Ass**	**Gov**	**Bks**	**Total**
Demolition	-	2	-	1	-	-	-	1	-	-	1	-	-	1	6
Expiration of Lease	4	2	1	2	2	2	2	2	-	3	-	-	-	-	20
Poor Conditions	-	4	1	-	2	2	1	-	-	-	1	1	-	1	13
Lack of Space	6	9	2	3	1	5	2	-	3	3	4	9	1	3	51
Inconvenient Location	1	-	2	-	-	-	2	2	1	2	-	1	-	-	11
Insufficient Prestige	1	1	2	-	-	-	-	2	-	-	2	1	-	-	9
Inadequate Car Parking	-	-	1	2	-	1	-	-	-	-	1	1	-	-	6
Rent/Rates too High	1	-	2	-	1	-	-	-	-	2	1	-	-	-	7
Consolidation of Scattered Offices	-	-	-	-	1	-	-	-	-	-	-	-	1	1	3
Other	2	1	3	4	5	3	7	2	1	1	-	4	2	1	36

professional zone. The main reasons for firms leaving their old sites were lack of space and expiration of lease. However, in the case of the 'Property sector', inconvenient location, insufficient prestige and high rents/rates were important locational factors (the latter reason being applicable to the smaller firms moving out of George Street, the other two reasons for the larger firms moving in to George Street).

Firms Anticipating a Move

31 per cent of all the firms interviewed may move premises in the next five years. As before, firms in the 'Legal Profession', 'Accountancy', and 'Banking' sectors anticipate little movement, but firms in the 'Construction' sector - a group showing little mobility in the past - anticipate moving in the future (along with 'Government Boards' and firms in the 'Other Professional' sector) (Table 3.16). Once again, lack of space is the main reason for movement. However, inadequate car parking, a factor rarely mentioned in the reasons for moving to their present site, is highly rated at the present time. Companies in the 'Other Professional' sector gave this as their main reason for moving, along with high rents/rates and lack of space.

Table 3.16. Anticipated Moves within 5 Years and the Reasons for Moving.

	Fin	Ins	Prop	Law	Acc	Op	Mfy	Con	Ta	Bs	Adv	Ass	Gov	Bks	Total
Moving	6	7	6	5	3	12	8	8	2	7	4	9	6	3	86
Staying	16	21	11	23	18	12	17	13	5	13	6	17	6	15	193
Reasons	**Fin**	**Ins**	**Prop**	**Law**	**Acc**	**Op**	**Mfy**	**Con**	**Ta**	**Bs**	**Adv**	**Ass**	**Gov**	**Bks**	**Total**
Demolition	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Expiration of Lease	-	1	1	-	-	1	1	1	-	2	-	-	-	-	7
Poor Conditions	-	1	1	-	-	1	-	1	-	-	-	2	2	-	8
Lack of Space	4	6	4	-	-	3	-	3	-	4	3	5	4	1	37
Inconvenient Location	-	-	1	-	-	-	1	-	-	-	-	1	-	-	3
Insufficient Prestige	1	-	1	-	-	-	-	-	-	-	-	-	-	-	2
Inadequate Car Parking	-	-	4	-	2	8	2	2	-	-	-	3	2	-	23
Rents/Rates too High	-	-	-	-	2	3	2	-	-	-	1	1	-	-	9
Consolidation of Scattered Offices	-	2	1	-	-	1	1	-	-	-	-	2	2	1	10
Other	2	-	1	5	-	1	3	4	1	2	-	1	2	1	23

These smaller professional offices (those rated between £200 and £800 in 1968-69) incurred a doubling of their rates on re-valuation in 1971. The proportional increase was less than this because the rate poundage fell during this period from 16/4 (82p in the pound) to 73p. Subsequently, in 1973-74, the rate poundage has increasedto 84p in the pound. Rents have correspondingly increased. Although rents vary according to location and the condition of the property, rents in modern buildings in prestige sites in central Edinburgh have increased from £1 a square foot to £2 per square foot from 1968 to 1974.

Architects, surveyors and engineers commute considerably to and from the office, so the increasing amount of vehicles on the road has aggravated the car parking problem. Road transport is the most widely used form of transport for businessmen in the city (75 per cent of them saying that a car was essential for their business). Apart from the problem of car parking and lack of space, some government boards are hoping to move so that they can consolidate their scattered offices.

Although many firms anticipate moving in the next five years, several questions remain unanswered: the question of whether these firms are happy in their present location, if those who hope to move still wish to remain in the C/A, and if a consistent pattern of suburban office development is being maintained conforming to post-war suburban locations.

Firms Dissatisfied with their Present Location

Only 24 out of 279 firms are dissatisfied with the present location of their office. This would appear to imply that if there was an adequate supply of office space and sufficient car parking facilities in the centre, the majority of firms would remain in the C/A. Of the 24 who are unhappy at their present site, 8 firms still wish to remain in the C/A. As before, one is an estate agency who wants to move into George Street (a distance of a hundred yards). Another eight offices are moving into the suburbs. These firms are mainly in the architect, builder's merchant, construction line. One firm will be moving over 200 of its staff from two prestige central sites to the northern suburbs (leaving a sales office behind). Inadequate car parking facilities and the lack of economic necessity for a central site are the main reasons for these firms moving out. Two quasi-government bodies will be moving, one in the very near future. However, the move undertaken is not of a great distance - only to the 'Inner Suburbs' (Ravelston)[4]. Six firms are moving or wish to move out of Edinburgh. One banking department's wish to go to Glasgow could be termed speculative, but the others will almost certainly take place.

As firms develop their industrial function in Development Areas, they wish their office function to be nearby. Thus, a distillery, a drawing equipment firm, and two sub-contractors in the building trade have removed their offices out of the city to these new premises. The other firm moving its office out of town is an estate agency who is going out beside the show houses that the firm represents. Two firms are not happy with their present site, but do not wish to move either. Traditional and prestige reasons are tying one firm to the centre, while the other organisation owns the premises that it occupies. If the latter firm moves, it may have difficulty selling the building before acquiring new premises.

4. The 'Inner Suburbs' is the intermediate zone between the study central area and the periphery of the Town Planning Department's central area.

Firms, Satisfied with their Present Location, but who Anticipate a Move

Although 31 per cent of the firms anticipate they will move in five years' time, this figure can rise as high as 43 per cent if the conditions and terms for movement are suitable at the time. 98 firms answered the last question 'Although you are happy with your present office location, if good office accommodation was available, would you be interested in moving to the following locations?' Preferred locations were then listed. Out of the 98, 62 firms anticipated a move in five years' time, the other 36 were possibilities. In total the breakdown of preferred sites were: 53 moving within the C/A, 14 to the 'Inner Suburbs', 23 to the suburbs, 3 outside Edinburgh and 5 depending on policy decisions. The latter were restricted to government boards and bank head office departments, but changes were foreseen in the next five years. The majority of firms considering a move in the future would therefore be remaining in the C/A (over 50 per cent) with about 24 per cent moving to the suburbs. The intermediate zone, the 'Inner Suburbs', accounted for about 14 per cent of the moves. All the firms in the 'Finance', 'Legal Profession' and 'Business Service' sectors would only move within the C/A, while most of the firms in the 'Property', 'Advertising' and 'Association' sectors also wish to remain in the centre. However, organisations in the 'Other Professional' category, government boards and insurance companies show a greater degree of mobility. This mobility depends on the nature of the firm. If an insurance company is a head office dealing solely in life insurance, it has fewer locational constraints than a composite firm which has greater contact with the general public, so that a central location is more desirable.

The government boards and insurance companies - the firms who employ the largest number of people in the sample - wish to move away from the centre. Both groups prefer a central location but, with the lack of available space, planning controls and the need to consolidate their scattered offices, moving out provides the only solution. The architects, and to a lesser extent the surveyors and engineers, anticipate moving for different reasons. Much of their business involves commuting to and from the office, so car parking has become the main problem for these firms, with the Corporation's new proposals doing little to alleviate the situation.

For planning purposes it is important to plot the preferred suburban sites of these offices, so that the existing transport network can be modified and improved to cater for the additional workforce that is moving out from the centre. Post-war suburban office developments were also mapped so that comparisons could be made between past and future office location patterns.

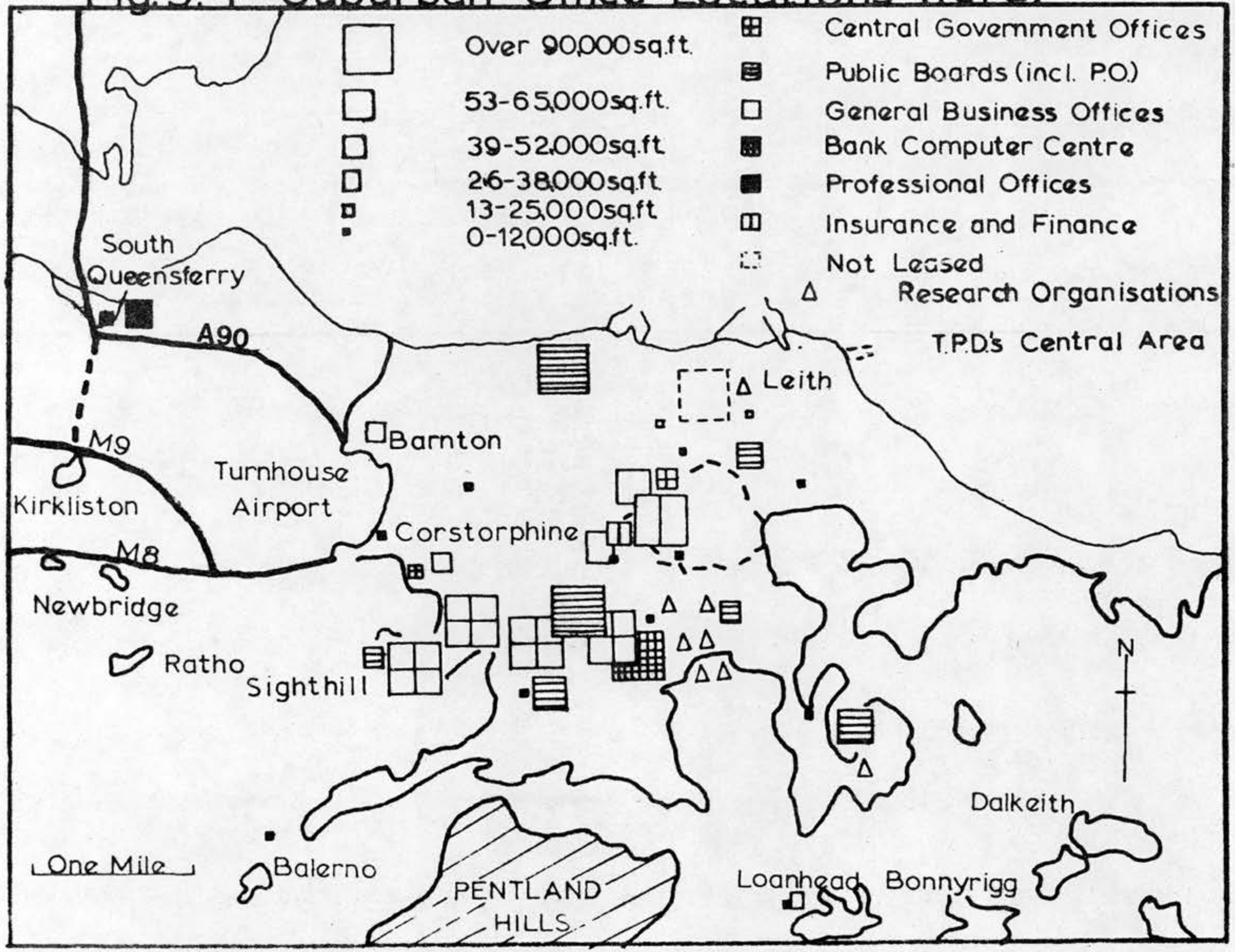
Post-War Office Building

Since 1945, 3.9 million square feet of new office space have been built in Edinburgh. 2.3 million square feet were built in the central area, 1.6 million square feet in the suburbs. From 1968 to 1972 there has been a comparative boom in office construction (in 1968 total square footage was 2.45 million, of which 1.6 million was in the centre and .85 million in the suburbs). Therefore, an equal amount of office floor space has been constructed both in the centre and the suburbs during this period (.7/.75 million square feet). Planning records also show an equal amount of floor space demanded (in terms of planning applications) for both the centre and the suburbs. However, the emphasis in the future must be on a greater amount of suburban office building. Available sites in the centre are at a premium and it is often difficult to receive planning permission in the centre for environmental or historical reasons. If many of the larger organisations do move from the centre, the office space vacated should be large enough to satisfy the demand for other central area users for a time to come.

As can be seen from the diagram (Fig. 3.4),[5] there is a general preference for the western side of the city. More recently, two general business offices have moved to the edge of the central zone (with a notable cluster at Ravelston). However, most of the professional and general business groups have tended to disperse throughout the city (the offices of two construction firms being several miles apart). 1 million of the 1.6 million square feet of space are taken up by public bodies, government departments or the 'Banking' sector. With the exception of the Gas Board and the Scottish Certificate of Examination Board, all of these offices are located in the Corstorphine - Sighthill - Saughton belt. The main reasons why the professional sector is so widely dispersed are that

5. Figure 3.4 shows the post-war pattern of suburban office developments (the research organisations, △, are not drawn to scale).

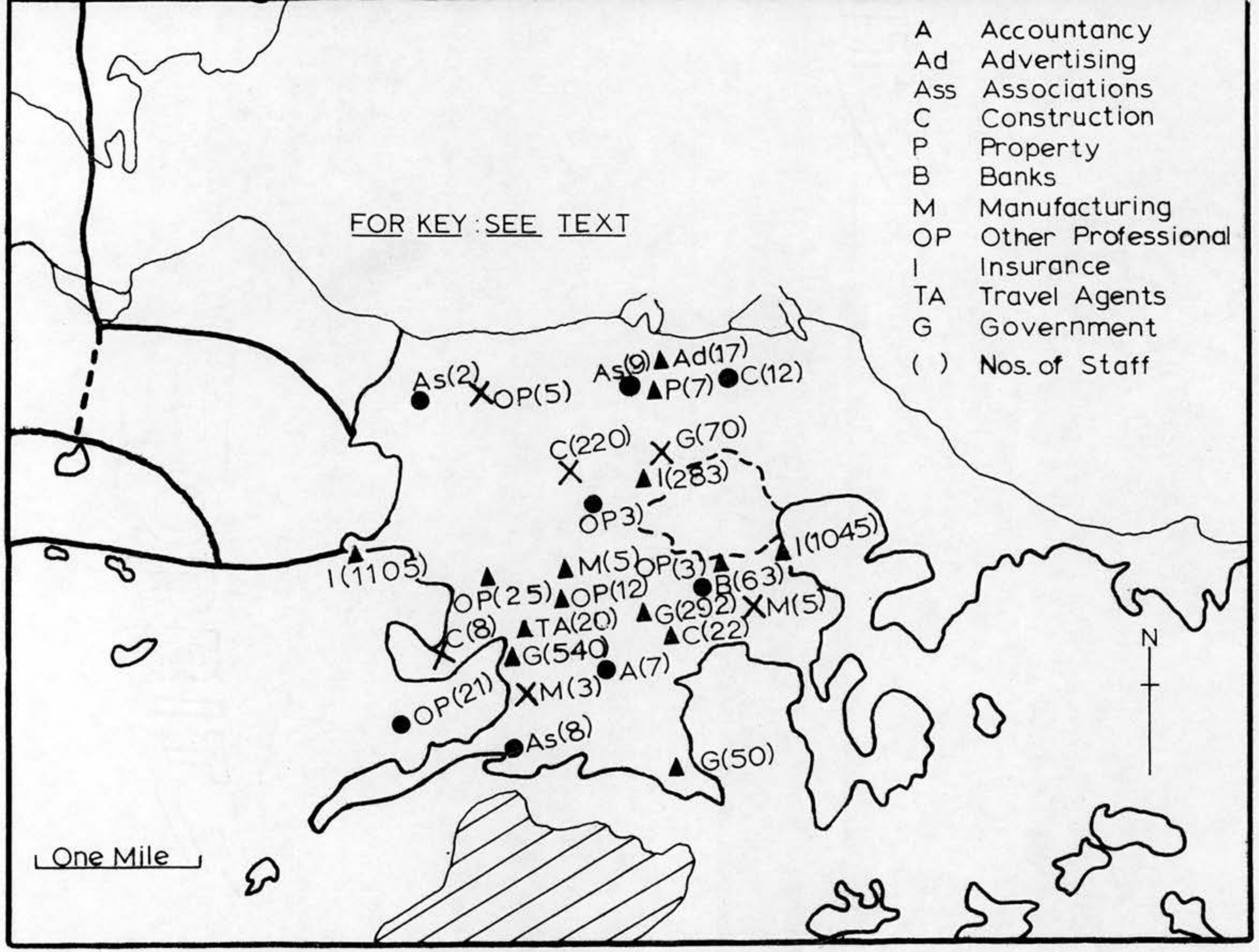
Fig. 3.4 Suburban Office Locations (1972)



they wish to maintain a conventional image and seek eye catching sites. This explains why so many architects and engineers convert country houses and castles for their business. Most of the other firms are in their present location because the site became available at the time, and not through any preference on the firm's part.

Potential Suburban Moves

Out of the 122 firms who may move in the near future, a map was plotted of potential suburban sites (Fig. 3.5). The crosses represent firms who are not satisfied with their present location, and are definitely moving in five years' time; the triangles, the offices who anticipate moving in five years, but are satisfied with their location, and the circles, those who may move if conditions are suitable, but couldn't foresee it in the near future. If the present employment totals of these firms are used, the absolute potential space required is around 890,000 square feet (housing 3,904 employees). If the third category - only move if conditions are suitable - is omitted, the office space required is 850,000 square feet (housing 3,737 employees). However, some of these firms who anticipate moving in five years, may

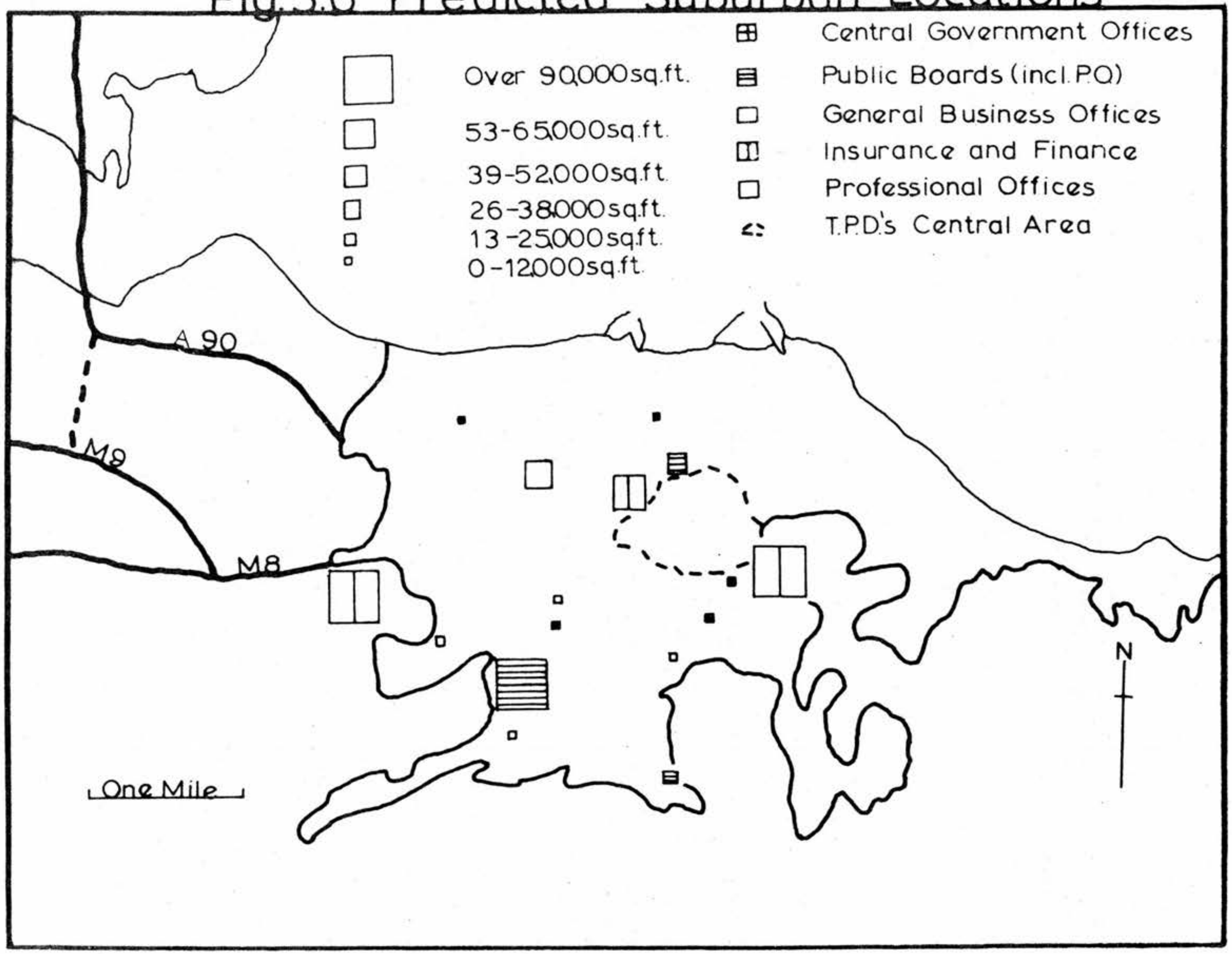


FOR KEY : SEE TEXT
A Accountancy
Ad Advertising
Ass Associations
C Construction
P Property
B Banks
M Manufacturing
OP Other Professional
I Insurance
TA Travel Agents
G Government
( ) Nos. of Staff
As(2)
OP(5)
As(9)
Ad(17)
P(7)
C(12)
C(220)
G(70)
I(283)
OP3)
I(1045)
I(1105)
M(5)
OP(3)
B(63)
OP(25)
OP(12)
G(292)
M(5)
TA(20)
C(22)
C(8)
G(540)
A(7)
M(3)
OP(21)
As(8)
G(50)
N
One Mile

acquire a site in the central area and may not necessarily move out to the suburbs. The advantage of interviewing firms personally is that a good assessment of the validity of their answers can be made. By using this method of deduction, a figure of 761,000 square feet was arrived at (3,383 employees). There was one reservation. The Scottish Special Housing Association should have gone to Livingston, but the staff rejected this move, so at present there is a possibility that they may re-locate in the western suburbs (this involves 540 staff and approximately 110,000 square feet). Selective sampling was so successful that five firms alone accounted for about 3,200 of these decentralised employees. As a 24 per cent sample was taken from the other firms in the C/A it can be assumed that a further 116,000 square feet will be demanded, which brings the total decentralised figure to 3,962 employees and 877,000 square feet.

As can be seen from the final map (Fig. 3.6), most organisations favour the south and west side as opposed to the north and west. The S.W. complex is the most favoured in town, confirming what has happened up to the present time. The availability of good communications, the M.8 and Turnhouse

Fig.3.6 Predicted Suburban Locations



Airport, staff accessibility and the nucleus of a shopping centre with associated facilities, are strong factors attracting offices to this area. At the Scottish Council for Development and Industry's conference on Centralisation in 1970, Jérôme Monod, a French urban planner, said that the conflict between centralisation and decentralisation was an ambiguous conflict, in that, to increase decentralisation, in a sense action must come in a centralised way. This is very applicable in this case.

The availability of hotels and shopping facilities is a very important factor in office location decision making. The use of hotels and clubs for business purposes received a high rating (a contact score of 41.9) and all the firms who anticipated moving out gave a high value to these facilities (better than average). The Gas Board, which has the most remote site of all the firms in the suburbs, allows travelling shops to come to the office so that the staff can do their shopping. The social/staff factor has tied many firms to the centre of Edinburgh. If the firm employs a large clerical, secretarial labour force with a large percentage of young female staff, the centre is the obvious area to catch this large labour pool. The transport structure radiates from the centre so all the major bus routes converge here. The younger staff prefer a Princes Street environment, so that they can shop at lunch time and meet new friends at work. This has been the main problem for the head offices of the life insurance companies. They are locationally footloose, but there would be a high staff turnover if they moved away from the centre. Standard Life have accepted this by anticipating a move to South Gyle. The firm's present staff residential centre of gravity is at Roseburn, so a western site would suit most of its staff. This probably explains why the other insurance companies have moved comparatively short distances away from the centre. At Ravelston or Parkside shopping and other facilities are no further than five minutes walk away.

The main nodes of present or potential office growth appear to be the south-west, Ravelston and the Trinity-Ferry Road complex. The east and south-east parts of the city have been neglected as yet by office developments. In order to achieve a better economic balance throughout the city it is hoped that the Parkside development and the new planning proposal for Meadowbank can attract firms to these areas.

There can be few cities in Great Britain which have a central area with such a high historic and aesthetic value as that of Edinburgh. Thus, locational decisions in the city are becoming more economic in character. This is why the sectors which were predicted to be possible candidates for decentralisation because of the linkage factor, the necessity for a central site and their main means of communication, are the categories who anticipate moving out. The majority of firms would remain in the centre if planning and parking controls were not so strict. In many ways the predictable exodus is more of an enforced decentralisation than one of choice. The possible breakdown of the finance axis along George Street/St. Andrew Square has come about because of the rapid rate of growth of these life insurance companies. They have built extensions, leased other buildings, but the demand is such that the Corporation's 'High Building Policy' which restricts upward expansion has made it almost impossible to house the whole firm under one roof. The need to consolidate their scattered offices has now achieved first priority over the importance of a central site for accessibility to staff, in the hope of retaining their 'career' staff and tapping new fields for routine staff.

Firms in the 'Other Professional' and 'Construction' categories are moving out of the centre because of the city's greatest problem - car parking. When all the firms' representatives were asked what services they thought were lacking in Edinburgh, 101 out of 279 thought services were adequate, but of the remainder 75 per cent said that radical changes were required in improving the transport structure and car parking facilities. The Chamber of Commerce's survey on reactions to the Buchanan Report found that although the majority accepted the proposals, they all had reservations in car parking policy. Unlike Birmingham, where the inner ring road comes into the centre with its cluster of multi-storey car parks, Edinburgh's greatest area of available space is in derelict sites, which could be sold in the future for commercial developments. The Corporation's proposals to increase the metered zone could accelerate the decision of some firms to move, and encourage potential stayers to move.

It is the architects, surveyors and engineers - constant commuters from office to site - who are beginning to move out of the centre. Manufacturing firms also work away from the office, but they are not so mobile as would have been expected from the linkage patterns. This can be explained by the size of firm - most firms employ so few staff that moving is unnecessary and inconvenient.

Bank head office departments, although showing no sound economic reasoning for having a central site, will not move out of the centre. Tradition and the magnificence of their buildings make it virtually impossible for them to leave. It is doubtful if any other firm could take over these extravagant buildings with their uneconomic use of office space. The space that will be vacated by the insurance companies in the George Street/St. Andrew Square axis will present a problem. Only the Government or the University departments - the organisations with the greatest appetite for land in the central areas - could afford to take over a site of this size.

CHAPTER 4.

THE STUDY

Part II

Introduction

The previous chapter outlined the general characteristics of the 279 sample offices visited in the central area. The locational requirements of the different functional groups were assessed in order to predict which category of office was more susceptible to decentralisation. However, each of these groups represents a wide faction of differing units, so although 'Finance' may be distinct from any other group in terms of function, important differences may still exist within the group itself. This chapter provides a more detailed analysis of each of the fourteen functional groups, outlining the role each of them plays in the city centre. Throughout the chapter the firms discussed in each group are the sample firms - the offices visited during the study.

Finance

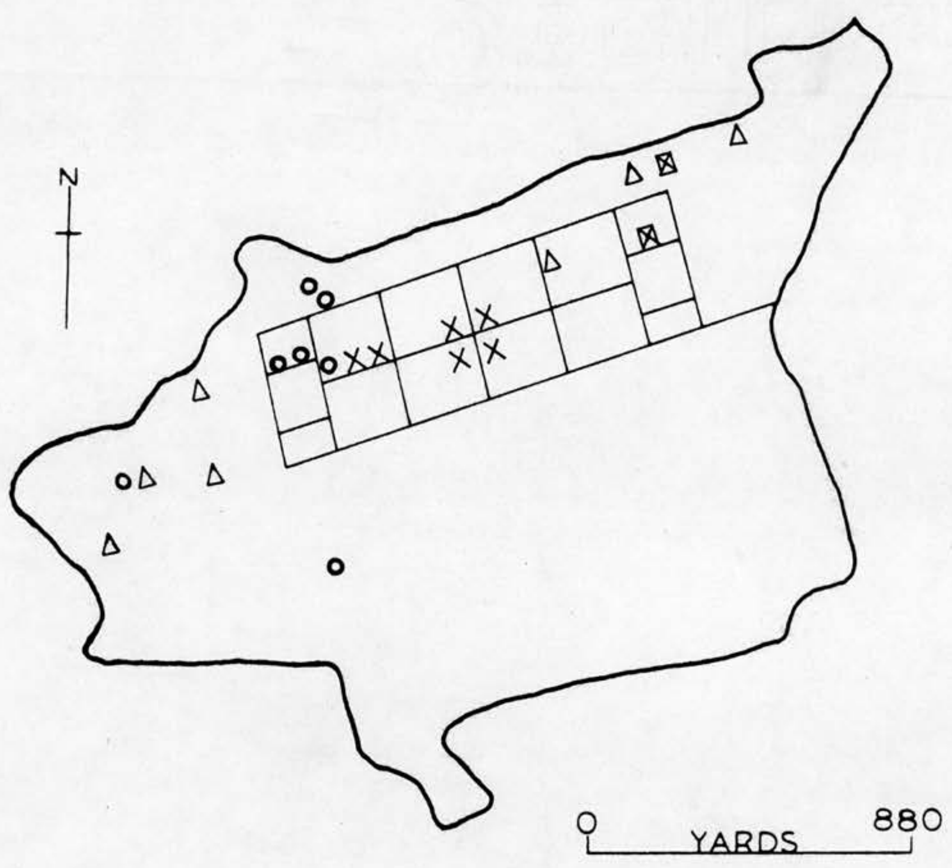
Location and Composition

The 'Finance' sector comprising 22 offices can be broken up into the following units: 2 stockbrokers, 6 building societies, 7 finance companies and 7 investment trusts and companies. The precise location of these groups (Fig. 4.1) shows that the building societies tend to line George Street, with the centre of gravity falling towards the west side, the investment trusts cluster at Charlotte Square (the companies being more widely distributed), the stockbrokers are within proximity to the old Stock Exchange in the east side, and the finance companies are widely dispersed throughout the central area.

Nature of Office

There are marked differences within the 'Finance' sector in terms of the nature and sphere of influence which each office serves. The stockbrokers and investment trusts serve the U.K. and overseas, are either head offices or of an 'only office' nature, whereas the building societies and finance companies are branch offices serving either a local or a regional area. Many of the latter groups have only established these branch offices in Edinburgh during the last fifteen years (two finance companies and three building societies) whereas all of the stockbrokers and investment trusts were located in Edinburgh before 1945, some of them before 1900. Two investment trusts have been established since the nineteenth century and have converted dwelling houses

Fig. 4.1 Location of FINANCE Offices



KEY

o	Investment Trusts and Companies
X	Building Societies
Δ	Finance Companies
⊠	Stockbrokers

Table 4.1. Face to Face Contacts with the 'Finance' Sector

Customers	53.4
Banks	49.8
Legal Profession	43.2
Accountancy	43.2
Insurance	37.3
Other Professional	35.3
Competitors	34.5
Finance	34.5
Travel Agents	31.6
Associations	29.1
Office Suppliers	28.2
Business Services	25.5
Property	24.8
Construction	22.5
Advertising	22.3
Local Government	21.6
Manufacturing	18.2
Central Government	16.6
Mean	31.7

in Charlotte Square for their business. These firms are still in these premises today. Most of the other firms have taken over Victorian buildings for their offices, the majority having been offices already. Three of the building societies converted shops in George Street.

Employment Structure

The size of office utilised in the 'Finance sector' is fairly small. Whereas 40 people per office is the average for the total data, 14 is the figure for 'Finance'. It is ironical that the national headquarters of a finance company moved out from the centre to the suburbs taking with it a larger labour force (450) than the total for the 22 firms added together. The finance companies are the smallest, employing under 10 persons per office. The building societies vary from 34 to 4, but it is the investment trusts who raise the average, one firm employing a staff of 60. Over 90 per cent of the female staff are of a secretarial or clerical nature (essentially senior clerical) while 50 per cent of the male staff are in the executive, professional and managerial class. There are a small percentage of representatives (7 per cent) who work with the finance companies. Staff recruitment is not difficult with secretarial staff providing most of the problems.

<u>Method of Communication Used</u>

It is difficult to define which is the main method of contact used by building societies and finance companies. Although they are visited, much of the work is done away from the office, or by phone and letter. Personal contact is not so important to the stockbroker or the trust manager. Most of their work is done by phone, letter and closed-circuit T.V. They are dealing with London and the national market, so telex, private line and teleprinter are very important to these firms. Keeping in touch with the present market situation needs a quick, reliable means of communication which these facilities provide. Telex has been installed in all of the investment trusts' offices, one of the investment companies' offices, while another investment company uses the bank's facilities. (One stockbroker has a teleprinter.) It is foreseeable in the future that a few building societies and finance companies may install new forms of telecommunications which most of the investment firms have already acquired, including at least closed-circuit television.

Locational Requirements

Face to face contacts are of major importance to building societies, minor importance to finance companies, and of little importance to the investment industry. Consequently, building societies require a central location, finance companies are split on the issue, and the trusts and investment companies' main reason for remaining in a central location is that overseas brokers and specialists would find it more convenient to visit the companies which are located in the centre than anywhere else.

Face to Face Contact Patterns

If the contact table is analysed, it would appear that 'Finance', overall, has fairly weak links with other firms with the strongest ties being with organisations in the 'Banks', 'Legal Profession', 'Accountancy' and 'Insurance' sectors. However, these figures tend to overestimate the degree of contacts investment firms have, and underestimate the strong links of the building societies (Table 4.1). The building society finds itself in a unique position at the point of liaison between the customer, his solicitor, the estate agent, the surveyor and also the insurance company or broker. The estate agent puts the property on the market, the surveyor values it and submits reports and plans, the solicitor completes the mortgage arrangements, and the insurance company, in many clients' cases, redirects life policies to the building society. These contacts are of daily to weekly frequency, which makes a mockery of some of these figures, namely 'Property' and 'Construction' at 24.8 and 22.5 respectively. The figures are more representative of the finance companies. These firms' main contacts are with lawyers, accountants and insurance companies, with much of their work being tied up in providing hire purchase facilities to the motor trade. However, the investment and stockbroker side of the 'Finance' sector have very weak personal links with other firms. Their strongest face to face contacts are with organisations in London and other major cities, implying that at least once a week someone from the firm attends conferences in England, or specialists do reciprocal trips to Edinburgh.

These conclusions are endorsed on analysing the type of communication firms rate most important in their business. Road transport is more favoured by the building societies and finance companies, with many of their staff seeking business in the local area. On the other hand, air transport receives top priority from the investment organisations and the stockbrokers although it is relatively unimportant to building societies and finance companies.

Office Mobility

Just over 50 per cent of the firms have moved premises in the last twenty years. Some moves were so short that they entailed moving to the house next door (especially the investment companies and trusts). Some of the finance companies showed a trend of moving from the main office zone in the central area to the eastern periphery. Lack of space was the main reason given, but one firm mentioned the increase in rent and rates. 6 out of 22 firms anticipate moving in the next five years. Lack of space is again the main reason, but one building society manager complained that his firm received insufficient prestige, because it is in the west ern end side of George Street in the midst of unlet, run-down, commercial property. Of these six firms only one is dissatisfied with its location (a finance company which is moving because of a merger). Of the other five, one building society is moving out of George Street to Charlotte Street, while another wished to move from the 'derelict' west end to the middle of George Street. All of the other firms (one building society, two finance companies and a stockbroker) will be moving short distances within the central area.

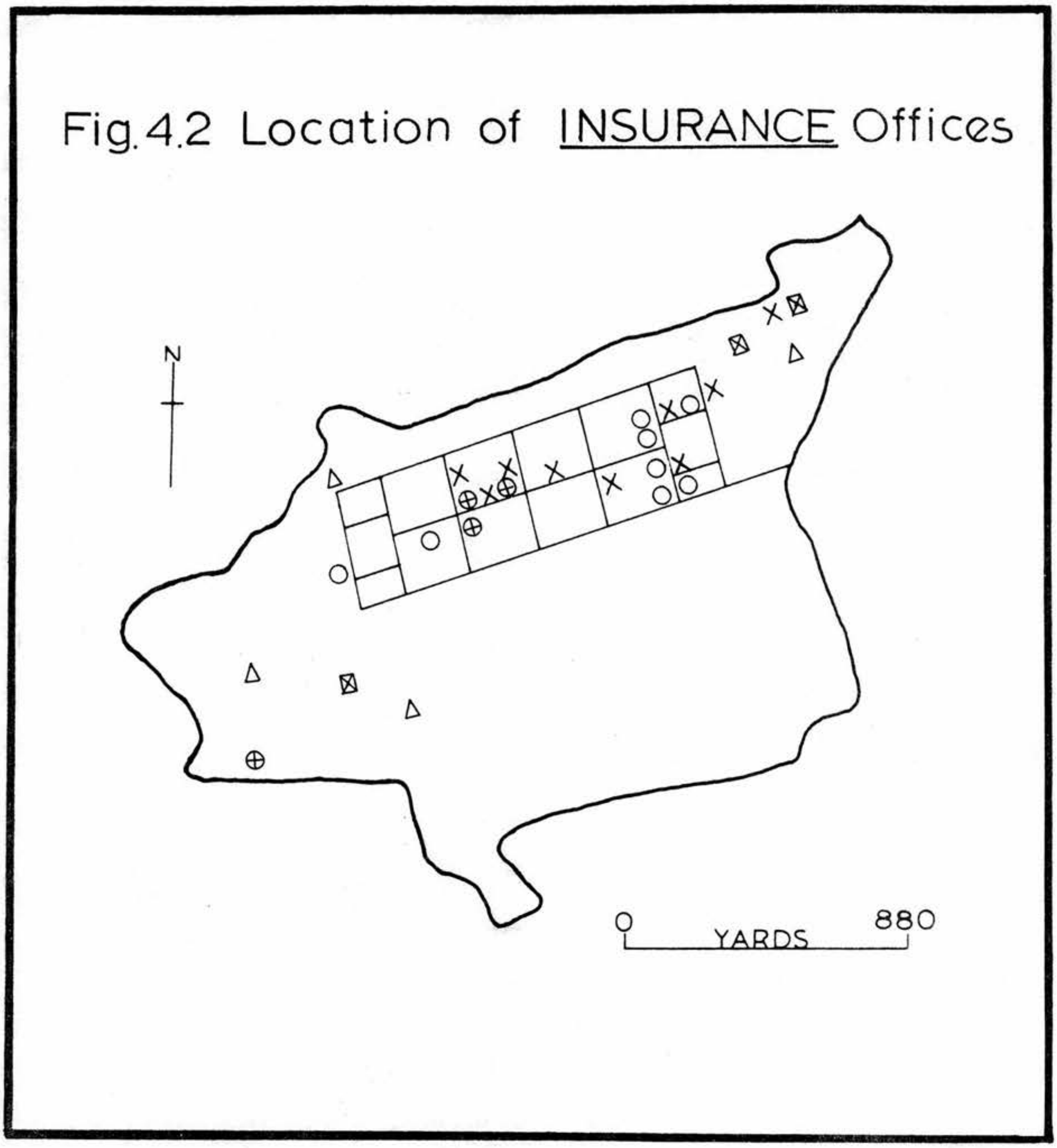
Locational Requirements

Within the 'Finance' sector building societies have more linkages and most justification for a central site. It is not only a central site that is important to them, but an open attractive site. Building societies are comparable with banks in many ways. They must be well laid out, eye catching and attractive, so that they have customer appeal. No one will invest money in a dull, run-down office. It is for these reasons that many of the societies interviewed chose 'corner' sites (Fig. 4.1.) so that they could be identified from as many angles as possible. This is why one firm wishes to move from the west end of George Street because the property around their office is lowering the attraction of the site. The distribution of finance companies in many ways helps to explain why they are locationally footloose. A central site is important to them because it facilitates customer contact, but there is no pressure on them to acquire prestige sites, so their distribution is fairly evenly spread throughout central Edinburgh. The stockbrokers and investment companies have least contact and justification for C/A sites. As the Edinburgh Stock Exchange has closed and its work transferred to Glasgow, the stockbrokers' main locational factor has been removed. However, one firm has strong ties with bank headquarters, so it will remain in its present site. The investment trusts and companies deal essentially with a national market, essentially London, modern communications are used, and personal contact with firms in Edinburgh is insignificant. Nevertheless, these firms have been in Edinburgh for the longest duration, many even in the same site, so tradition ties them to the centre. There has been little pressure on these firms to move in any case, as they do not anticipate any significant increase in staff to require additional floor space.

Insurance

Composition and Location

The 'Insurance' sector is by far the most important of all the groups studied. The 28 sample offices visited total 4,381 employees, 38 per cent of the combined total employment of the offices in the complete sample. Although there are differences within the 'Insurance' sector, these are not so clear cut as those in 'Finance'. The main distinctions are not the differing functional roles within the group, but the varying types of insurance that these companies cater for. The main group is the life insurance type. They deal solely with pensions and life cover, and tend to be located within the vicinity of St. Andrew Square (Fig. 4.2). The general insurance company offers cover for fire, theft, the car and other personal property, while the composite firm, as the name implies, offers life insurance as well as the aforementioned list of general insurance cover. The title 'Special' insurance was given to the companies of a friendly society nature. Many of these firms still retain the name, but not the original function whereby introduction to the firm was by nomination only. These firms are not orientated to the main George Street/ St. Andrew Square axis as the other insurance groups, and tend to be found in the periphery of the C/A. The industrial life insurance firms, on the other hand, with the exception of one company, are firmly clustered together in the middle of George Street.



KEY

O	Life Insurance Companies
X	General-Composite Insurance Companies
⊕	Industrial Life Insurance Companies
⊠	Insurance Brokers
Δ	'Special' Insurance Companies

They operate in the same way as the life insurance companies, but the main distinction lies in the differing markets in which they operate. The industrial life insurance firm caters for the lower income groups involving small premiums, which are usually collected weekly, the life insurance companies generally handle larger policies paid quarterly. The brokers, the main link between the companies and the clients, tend to be spread evenly throughout the central area, although the majority of firms tend to be on the periphery of the central area similar to the location of the three brokers interviewed.

Nature of Office

Seven out of the eight life insurance firms are head offices serving the whole of the country. The other office - a branch office - was established in Edinburgh recently, but all of the headquarters had been in Edinburgh throughout the century, if not before. The majority of the other insurance groups had also been established before the war with only the brokers being a recent phenomenon. However, most of these firms are only branch offices (brokers came into the 'only office' category) serving a local or regional market.

Employment Structure

Although, overall, the 'Insurance' sector is significantly above the average size of office for the total aggregate data (157 compared to 40) only two groups (life insurance on 427 and general and composite on 87) are above average. The life insurance companies employ the greatest number of people with over three-quarters of their staff being of a clerical/secretarial nature. Much of their work is routine, involving the drawing up of policies, cataloguing and other menial duties. The managerial and professional sectors only total 10 per cent of the total staff, although one firm has 17 per cent employed in this sector. This executive class is almost totally male in composition, whereas there is a female dominance in the clerical/secretarial sector. The number of inspectors employed as a percentage of total employment is low (3 per cent). This figure varies according to the status of the office. Inspectors operate from branch offices and many of the head offices visited did not include inspectors in their employment table, even although the branch office, in some cases, was attached to the main office. As the head offices employ a large part of the

4,381 staff, this explains the low figure recorded for inspectors.

The composition of the composite and general insurance firms is similar to that of the life insurance companies, with the exception of the numbers employed in the inspector category. More inspectors are employed in this sector (9 per cent of the total). The other sectors have smaller than average-sized offices: industrial life insurance companies average 30 employees, 'Special' insurance average 9 staff, while the brokers average a meagre 4. Firms in the industrial life insurance and 'Special' insurance groups employ a large number of inspectors or agents, the name given to them by these firms (63 per cent and 56 per cent of their respective labour force total). The numbers employed in clerical/secretarial work are small, while there is a higher than average number of managerial staff. Most of their work involves either the collecting of premiums from the public or the seeking of new business - routine business is minimal. The brokers employ an average of four people per office - two managerial and two secretarial/clerical staff.

Methods of Communication Used

As most of the work in the head offices of life insurance companies is routine, the majority of the business is dealt with by phone or letter. The brokers are similar in that the phone is the main method of contact, but the other groups' business tends to be of a face to face nature, usually away from their own office. In the everyday running of a life insurance company's head office, face to face contact with the general public is non-existent. For example, investment and property departments use telex (all headquarters have it) or phone to keep in touch with the national market. By the very nature and status of the general, composite, 'Special' and industrial life insurance firms, contact with the public is inevitable if new business is to be acquired. Nevertheless, one composite insurance company has closed-circuit television and three other composite/general insurance firms anticipate using modern methods of communication in the future as well as four life insurance companies and one 'Special' insurance company.

Face to Face Contact Patterns

As can be seen from Table 4.2, most of the insurance companies' contacts are with the professional sector, that is, firms in the 'Banks', 'Legal Profession', 'Accountancy', 'Finance' and 'Other Professional' sectors. These firms act as agents for the insurance companies, especially life insurance companies, so that a wide net of clients can be acquired and the mutual exchange of business can be agreed upon. The figures given for the life insurance companies are stronger than those in Table 4.2, the linkages between these companies and the professional sector varying between daily and weekly contacts. This may seem confusing since life insurance companies were mentioned above as having little face to face contact with other firms. However, this refers only to head offices. The branch offices of these life firms acquire the business, have most of the linkages with other firms and then channel this information to the headquarters for processing. The manager interviewed tended to speak for the whole organisation, so the functions of the branch and head office were combined and a contact frequency given.

The general and composite insurance firms also maintain a stronger than average contact with the professional classes (weekly contact). As they are branch offices, contact with the general public is strong, and a larger inspector force keeps in touch with clients and other agents. One industrial life insurance company has very little contact with other firms, but the three George Street firms have stronger links, especially with clients, as a counter service is provided for the paying of premiums. However, face to face contact with other firms is not so strong (monthly) because this type of firm relies on full-time agents to act as intermediaries between the office and the client, to facilitate the collecting of premiums. The professional sector's contact with the 'Special' insurance group is weaker (a few times per annum) because most contacts, like the industrial life insurance firm, are made through an intermediary, in this case, the representative.

Locational Requirements

A central area location is necessary for most insurance companies (23 out of 28 giving reasons why they should be located there). The life insurance companies need a public branch office in the centre for the convenience of clients and agents, but in addition a central location also provides maximum accessibility for staff. The majority of employees are clerical or secretarial, young and more dependent on public transport. Because of the present transport structure, all routes radiate from the centre and the bus station at St. Andrew Square. Consequently, these firms' labour pool extends throughout Edinburgh, and in many cases further afield (Fife especially). The young office girl probably enjoys working in the centre, where she can shop at lunch-time, meet new friends and commute to and from work with little difficulty. This adds to the firms' problems if they wish to relocate.

The staff problem is not quite so acute for the branch offices of these general and composite insurance firms (the numbers are not so large). They need a central site because they receive constant enquiries about claims. Customer convenience and the strong contacts with the business community tend to tie these companies to the central area. Because customers come and pay their premiums to the industrial life insurance firms, a central area site is convenient, while firms in the 'Special' insurance category have least reason for being in the centre, with much of their work being carried out throughout the region away from the office. The brokers have to be close to the insurance companies, and still be convenient enough to attract clients and passing trade.

Table 4.2. Face to Face Contacts with the Insurance Sector

Clients	57.0
Banks	53.4
Legal Profession	45.5
Finance	45.5
Insurance	44.8
Accountancy	42.5
Competitors	40.5
Other Professional	35.0
Travel Agents	34.5
Associations	29.6
Office Suppliers	28.6
Construction	27.9
Property	26.6
Local Government	26.3
Advertising	22.7
Manufacturing	21.8
Business Services	21.1
Central Government	16.8
Mean	34.4

Out of these 23 firms who need a central area location, prestige or tradition played an important role in 18 of these firms' locational decisions. A M.Sc. thesis by Lawson D. McCowan on "A Study of the Importance of a Central Area Location to Insurance Offices in Edinburgh' in 1970 revealed that prestige, followed by staff access, were the two most important locational factors for insurance companies in central Edinburgh. A George Street, St. Andrew Square address still has importance for these firms, although it would seem that well established companies, namely, head office firms in Edinburgh, could survive elsewhere on their good name alone. In fact, in many cases this is what some of these life insurance head offices are being forced to do. They are all satisfied with their present site. Indeed, the manager of one firm showed concern for Edinburgh as a financial centre with the probable splintering of companies away from the main George Street/St. Andrew Square axis. The lack of suitable office space and building controls leave the life insurance firm with the decision of whether to remain in the centre with offices scattered throughout the area or to move to the suburbs with all of the organisation under one roof. (One firm who is moving out has a larger staff in offices away from the main building than that in the head office itself.) As business has boomed, more secretarial/clerical staff have been required to cope with the increase, and further growth is anticipated. The other groups do not compare with this type of expansion, and in some cases (in the general and composite insurance groups) pruning of the staff has occurred in the cause of efficiency.

Office Mobility

Prior to these recent developments, mobility in the life insurance field was negligible. Although there was considerable movement in other groups, especially in 'Special' insurance, where every firm had moved in the last twenty years, most moves covered a short distance, except for one firm which moved from outside the eastern central area to the West End, and another which moved out of St. Andrew Square to the northern New Town. Other moves of note were the moving of an industrial life insurance firm to George Street to gain more prestige, and the moving out of a broker from George Street to the West End.

Future movements will be of a different character. 25 per cent of the firms anticipate moving; of these, life insurance companies and general and composite insurance firms will make the most significant moves. Lack of space is the crucial factor affecting the firms' locational decisions, but whereas the general/composite insurance companies will remain in the centre (one firm consolidating itself in St. Andrew Square), three life insurance firms will move out of the central area to Ravelston, South Gyle and Parkside. These moves will take 2,500 employees out of the central area (potentially 3,500 in five years) to sites remotely divorced from each other. Two out of the three firms have remained close to the centre, so that the staff turnover after the move may not be high, but the other anticipates moving three miles from the centre to the western suburbs. The latter firm hopes to invest in shops and other facilities in order to create a new secondary centre. This is a promising move, as post-war suburban office developments have taken a westward trend, clustering around the Corstorphine/Sighthill/Saughton area. The centre of gravity of the place of residence of the firm's work force is Roseburn, so a move to the west would suit most of its staff. Nevertheless, the management are willing to lose some of their routine 'non career' employees in the hope that they could tap the labour pool of the west side of the city or beyond, in Bathgate and Broxburn.

Because of planning restrictions, economic reasons are beginning to overrule the combined factors of prestige and staff accessibility in life insurance companies' decisions to remain in the central area. However, it must be remembered that it is only the 'factory' work that is being moved out, with the branch office maintaining contact with the general public and the professional agents. Head offices' contacts are essentially with London, using telex, phone and other non-personal forms of communication. The firms of this type who are remaining in the centre are those who have sufficient space and property adjacent to their present premises to expand. All the other firms are branch offices maintaining contact with clients and agents, with the industrial life insurance firms providing a counter service for the paying of premiums. For convenience to customers and other firms, a central area location is important in these cases. Firms in the 'Special' insurance group have least reason to be in the centre, but the dispersed character of their location helps to explain this phenomenon in any case.

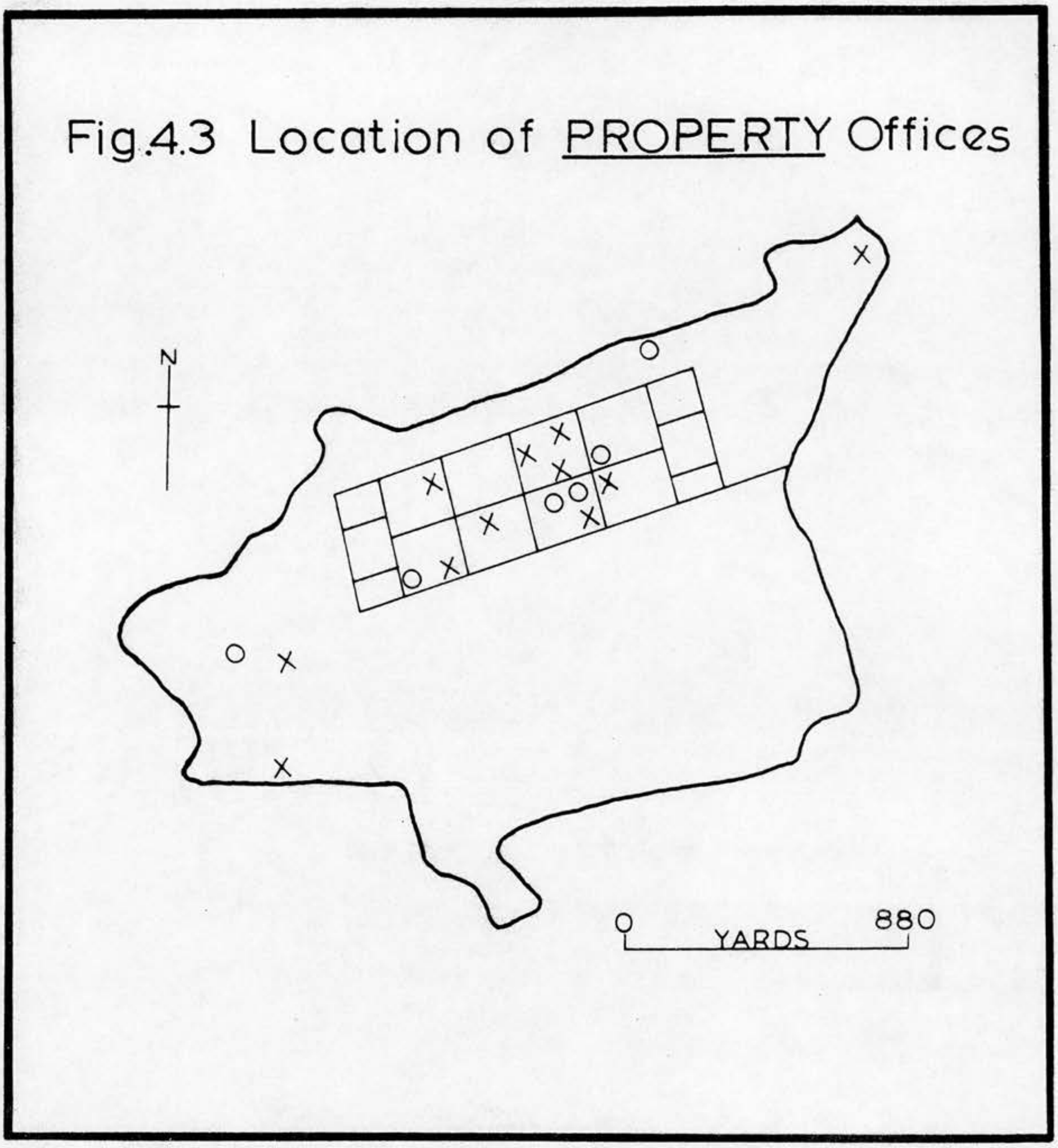
Property

Composition and Location

The functions of the 'Property' sector are the factoring, valuing and selling of residential property in the local region, and the purchase and sale of commercial property (shops, offices and hotels) throughout Scotland. The only differences that exist between firms in this sector are that some perform all of these functions, while others specialise in certain aspects of these fields. (See Fig. 4.3). At the present time, these minor functional differences have had little effect on locational patterns with the majority of firms clustering in the central office zone, with some companies located on the periphery of the central area.

Nature of Office

The main distinction between these companies is whether they have a commercial department or not. Naturally, the multi-purpose firms have both a commercial and a residential department, but three other companies only have a commercial department. One is a hotel agency, another a commercial property developer, while the third only recently gave up its residential department. Firms dealing solely with residential



KEY

O Multi-functional Firms

X Uni-functional Firms

property either serve the Edinburgh area, or other outlying districts within 30 miles of Edinburgh. The factoring of either estates in the area or property in the city is done by offices ~~who~~ which have no other branches or head offices. The companies involved in the surveying and valuing of residential property are all branch offices. On the other hand, commercial developments are involved in transactions of millions of pounds in the buying and selling of hotels, shops and offices throughout Scotland. Three of these firms have their head offices in the city. However, these firms are recent arrivals in central Edinburgh. Only one firm has been in the centre since the war, four were established between 1945 and 1960, and four others came to Edinburgh in the last ten years. On the residential side, the firms in factoring were well established (pre 1945) while most of the valuers have been in Edinburgh a shorter length of time.

Employment Structure

The 'Property' sector does not employ a large labour force. The seventeen companies have an average of 9 per office, which is significantly below the overall average. The multi-purpose offices employ more than this (19 per office), but the two largest firms only have a staff of 49 and 30. The male/female ratio is fairly even with most of the males having a managerial or professional status and the women being employed as secretarial staff. 50 per cent of the firms visited were unhappy with the quality of staff recruited and found particular difficulty in acquiring good surveyors and other professional staff.

Methods of Communication Used

The telephone and correspondence are the main methods of communication for the multi-purpose offices. Nevertheless, personal contact is very important to the residential departments with prospective clients viewing the advertisements of houses for sale before making enquiries. The valuer does a good deal of his work away from the office, while the factor is either visited at the public office or inspects old and potentially new property outside the office. The small agencies do most of their work in the office with clients making enquiries about different types of property. New means of communciations are not seen to be forthcoming in the property field (only one envisaging this). Most work is done either personally or by phone or letter, so few firms have telex (one) or private line telephones (one).

Both these firms have links with the south or abroad so modern communication techniques are more important to them than most companies.

Face to Face Contact Patterns and Other Locational Requirements

Because of its size and limited function, the 'Property' sector is near the bottom of the table for 'total' contacts in central Edinburgh. Nevertheless, contacts are strong with the close knit community with whom property firms associate, so 'Property' appears well up the table in the individual sector ratings (compare Tables 3.7 and 3.10).

As can be seen from Table 4.3, the main contacts are with the 'Finance' sector and the legal profession, with the rest of the professional classes not far behind. Much of their work has already been explained in connection with the building societies' cross linkages with the 'Property', 'Legal Profession' and 'Insurance' sectors. All functional categories within the sector have strong contacts with the legal profession because lawyers provide the link in all transactions whether buying, selling or valuing the property. (One firm has a private line to its lawyers.) A central location is essential for most of these seventeen firms. Small agencies (one speaking from experience, having been in a remote site outside the central area) find business easier to attract and maintain if customers throughout the city can find them in the centre. The valuers have contact with building societies and lawyers, while the factorial offices have a cash room which is more convenient for customers in the centre. The residential departments of the multi-purpose firms require an attractive central site. Similar to a building society, they must choose eye catching sites where the pedestrian can easily find them (one is just off Princes Street, while three others cluster ~~along~~ around the junction of George Street and Hanover Street). The commercial side of the business has the least pressure on it for a central area location as most of the business is done by phone or letter. However, it is unlikely that these firms will split up their departments when they can have them under one roof in the centre.

Office Mobility

Although growth rates in the 'Property' sector have been fairly insignificant, the two largest firms have increased their staff from 7 to 30 (329 per cent increase) and 22 to 39 (80 per cent increase) in the last ten years, and expect these figures

Table 4.3. Face to Face Contacts with the 'Property' Sector.

Clients	60.0
Banks	52.6
Legal Profession	47.6
Finance	45.3
Property	41.2
Competitors	41.2
Other Professionals	10.9
Office Suppliers	39.7
Insurance	39.4
Local Government	39.4
Construction	35.3
Accountancy	34.4
Business Services	31.5
Travel Agents	29.7
Associations	27.1
Central Government	37.1
Advertising	23.0
Manufacturing	20.9
Mean	37.6

to rise to 37 and 45 respectively, in the next five years. These firms will have to move in the near future because of lack of space, and in one case (the firm in the West End) to consolidate scattered offices. One other multi-purpose firm intends to move within the next five years. This is the firm in the northern periphery of the central area. This location is inconvenient because it is not receiving sufficient prestige in its present site. This trend is a continuation of what has happened in the last ten years. Two multi-purpose firms have already moved from the West End to George Street for similar reasons. On the other hand, significant changes occurred in other aspects of the property field. Although distances moved were small, some single function firms moved out of George Street or moved further away from prestige sites in the central area because of high rents and rates. The firm which gave up the residential side of the business saw no further reason for remaining in a prestige George Street site, and moved into a second floor office in an adjacent street.[1]

Fifteen out of the seventeen companies are satisfied with their present location. Of the two who are dissatisfied, one

1. Rateable values are usually lower in streets that cross George Street. However, this depends on the age and condition of the office premises. Ground floor offices have a higher rateable value than offices on other floors.

is the firm on the northern periphery who intends to move into George Stteet. The other firm deals exclusively with the selling of one make of house. It will soon be moving to Ingliston next to its show houses, where it will have no car parking problems. Five out of the fifteen companies are satisfied with their location, but may move in the next five years. Two multi-purpose firms will consolidate their position by acquiring prestige sites. The firm, at present in the West End, will move towards the main central office zone while a company, which is no further than twenty yards from George Street wants to move into that street. A factorial firm anticipates moving, having already moved out of George Street to Hanover Street in the last fifteen years. Although the organisation will remain in the central area, no specific preferred location was given. However, the companies only concerned in commercial developments foresee a movement from this main central zone. The property developer is going to move out to a site in the northern suburbs, which is one of its own speculative developments. The firm, which gave up the residential side of its business after moving out of George Street, is going further out - to the West End, in the next few years. The other commercial enterpise, the hotel agents, may move if the conditions are suitable, but the firm will remain in the central area.

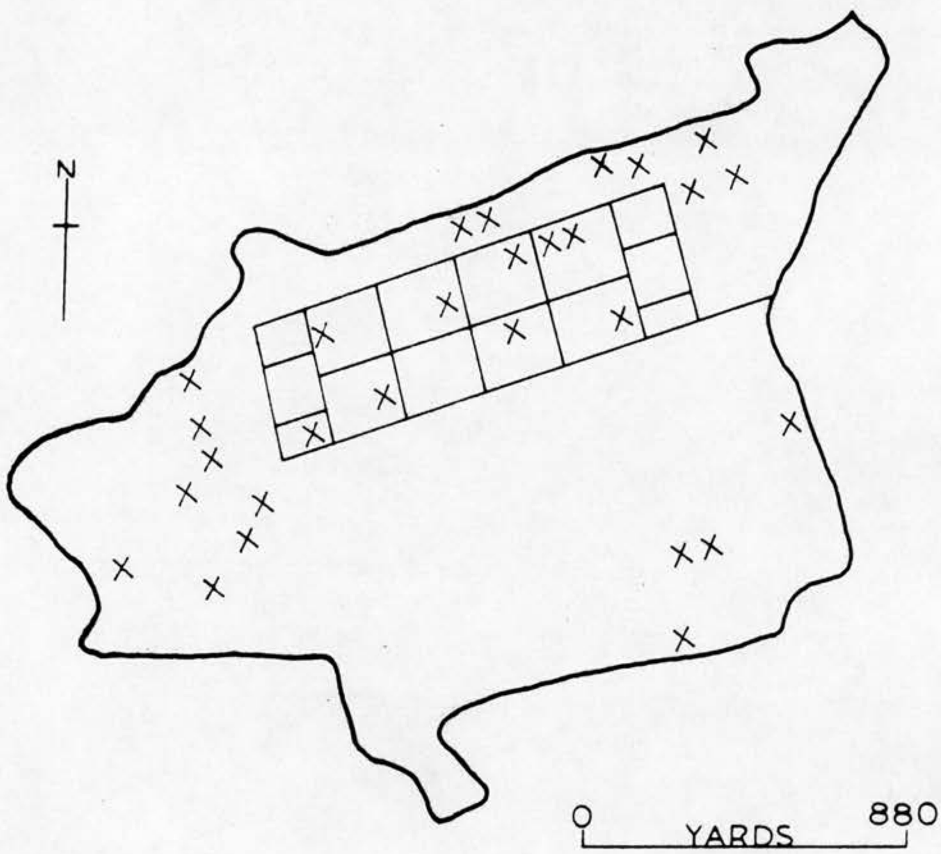
A two-way system is beginning to develop. The multi-purpose organisations are hoping to consolidate their position in prestige sites along George Street, while the single function firms, although remaining in the central area, will continue their trend of moving away from George Street. The commercial departments of the multi-purpose office can operate just as efficiently away from these prestige sites, but it is doubtful if any of these firms will split up their office. However, the single functional units who specialise in commercial property have begun to move to the edge of the central area or to the suburbs. Their linkages, especially with the general public, are not so strong as those of firms specialising in residential property. Telephone and even telex, with one firm, are the main methods of contact used, compared to face to face contacts by the residential companies. Therefore, a central location is imperative to firms dealing with residential property, but not so important for commercial property companies, although they still prefer a location in the central area.

The Legal Profession

Location

The legal profession is closely tied to the central area. Of all the sectors it has the strongest linkages and most reasons for a central area location. Although only 26 out of 184 firms in the centre were visited, 180 of these companies are located north of the Princes Street/Rutland Square axis. The other four are located in the south-east (see Figure 4.4). However, these firms operate in much the same way as the others and, as the courts are south of Princes Street, they are, in some aspects, better placed. The present locational pattern is Victorian in character. Until the late eighteenth century, the residential population and business enterprises were all clustered in the old town. With the building of Craig's New Town most of the professional classes and their businesses moved north across the Nor' Loch. This characteristic has been maintained up to the present day with the majority of legal firms and other professional firms being located in the New Town and the West End; the four other firms are a residue of the pattern of development in the eighteenth century.

Fig.4.4 Location of LEGAL Offices



Nature of Office

All legal firms come into the 'only office' category with most of their work covering either the local area or the whole of Scotland, for the Court of Session in Edinburgh is Scotland's principal court. Some of the larger firms (over 50 employees) cover a wider area with clients south of the border. 23 of the firms have been established before 1945, and the five others have been the product of mergers and split partnerships, so they are not as recent as the figures imply. Continuity is a characteristic of this sector, and only 5 of the 28 firms have been founded since 1945.

Employment Structure

A firm on average employs 16 staff, although this varies in the sample from 1 to 53. Only recently two of the larger firms (not in the sample) announced their intentions to merge, which would give them a total of 22 partners and approximately 130 other staff. Amalgamations have been common in the last few years, so it is possible that the number of firms will decrease whilst the average size of firm will increase.

A firm with a staff of 16 has the following structure:-

	Male	Female
Partners	3	
Assistants (qualified)	1	
Secretarial	-	6
Clerical	1	4
Apprentices	1	-
Total	6	10

These proportions are fairly representative for the sample firms, for example, firms with a staff of 50 will have 7 partners, 7 assistants and 3 or 4 apprentices, the remainder being secretarial/clerical staff. The smaller firm will have no apprentices and often as not no qualified assistants either. In the above case the three partners will specialise in either court work, conveyancing or trust and executry. The assistant will fill one of these roles without being an active member of the company in terms of shared profits. The apprentice qualifies after two years practical training and in some cases is not replaced. Yet all of these professionally trained employees only provide a small percentage of the total work force of the firm. Most of the staff are clerical or secretarial workers (65 per cent). Legal firms have a large typing pool while the senior clerk (usually male) administers the cash room with his assistants. It is the routine staff that the management find most difficult to recruit. 10 out of the 28 firms had difficulty recruiting suitable staff. The market is glutted with this type of worker, but it is not the availability of staff that is the problem, but the quality of staff. Staff turnover is high in this category because the larger organisations, namely insurance companies, could offer higher rates of pay.

Method of Communication Used

Although phone or letter is given as the main method of contact used by legal firms, face to face contact is very important in the day to day running of the firm. As can be seen from Tables 3.7 and 3.10, the legal profession has very strong linkages with the rest of the business community in Edinburgh. As a sector, the 'Legal Profession' has the highest contact score, with these contacts outlined in Table 4.4. The private messenger (usually the office girl) commutes daily with letters to the business sector in the central area (usually to other lawyers and advocates). The legal profession is a close-knit community and daily contact is maintained by firms in all aspects of their work. The Courts and Register House are probably the main linkage factors for the legal profession, tying them to the central area. Some firms do not do court work, but they are in the minority and are smaller than the average size of firm. However, they are tied to the centre for other reasons, for example, in conveyancing, linkages with the building societies are strong as has been stressed already. All of the professional sectors are strongly linked, so that a mutual exchange of business can be carried out. This is particularly strong with the insurance companies as the legal profession act as agents on their behalf.

Office Mobility

Because of these linkages and the necessity for a central location, office mobility would be expected to be of little significance. There is no demand for office space with 24 out of the 28 firms anticipating no significant change in staff, while the other 4 can only foresee small changes. In the last twenty years, only 30 per cent of the firms moved premises, and those were all short distance moves (some moving to premises in the same street). Only 5 out of the 28 firms will move within five years and all of them gave the same reason for moving - amalgamations. However, all of the firms are satisfied with their present location, but eight firms may move if suitable accommodation came on to the market. No-one wished to move out of the central area and two firms tentatively suggested that they may move as far as the edge of the central area or to the 'Inner Suburbs'.

Unlike legal firms in other major cities of Scotland, Edinburgh solicitors are more tied to the central area because of their dependence on the Court of Session. Nevertheless, conveyancing and trust and executry tend to tie a firm to the business centre and the linkage patterns bear out this view. Office mobility is negligible and any future moves will be within the central area in any case. Six years ago, a firm moved from the centre to Bruntsfield in the 'Inner Suburbs' zone. This was considered to be a radical move, and many of this firm's business associates have expressed dissatisfaction with the new location because they are not within walking distance.

Table 4.4. Face to Face Contacts with the Legal Profession

Clients	60.0
Banks	59.1
Competitors	56.6
Legal Profession	56.6
Central Government	56.3
Insurance	48.8
Finance	46.8
Accountancy	41.3
Other Professionals	41.3
Local Government	40.9
Office Suppliers	40.0
Property	38.0
Business Services	36.6
Associations	35.0
Construction	28.8
Travel Agents	27.0
Advertising	29.9
Manufacturing	20.1
Mean	42.2

Accountancy

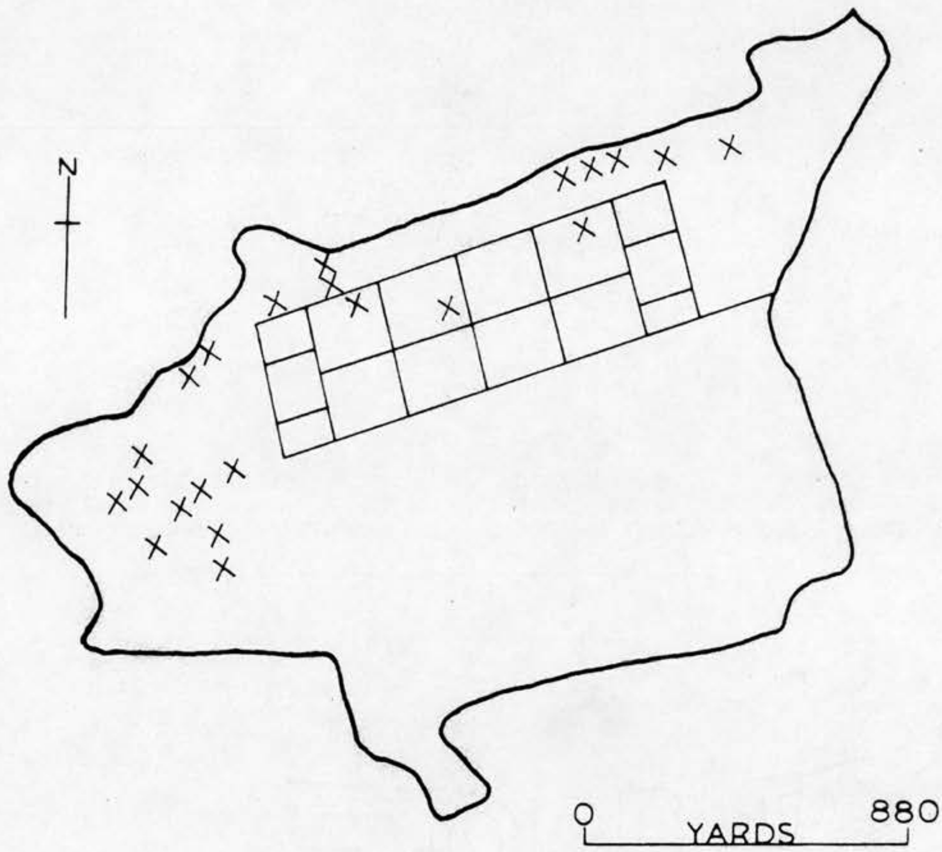
Location

The 21 accountancy firms in the sample show a more clustered locational pattern than that of the legal firms (compare Figs, 4.4 and 4.5). Whereas the legal firms are widely distributed throughout the central area, accountants are found on the edge of the central area in the northern peripheral zone, or in the West End. In some cases they have converted hotels and clubs for office use, but the renovation of older offices and residential premises has been more common along the commercial - residential transition zone. The larger accountancy firm, in some instances, has taken over blocks of offices adjacent to each other before carrying out the necessary renovation. One firm completely rebuilt old office premises in Abercromby Place.

Nature of Office

The office characteristics of accountancy and legal firms are very similar, but the small differences that exist between the two help to explain their differing locational patterns. Most firms have been established in Edinburgh since 1945 (18 out of 21) and two-thirds of the sample total are

Fig. 4.5 Location of ACCOUNTANCY Offices



independent companies, that is, come into the 'only office' category. Two firms are head offices with other branches in the local region, and five other companies are branch offices of southern based accountants. So, unlike the legal profession, who had a high proportion of firms serving only the city of Edinburgh, the accountants' main sphere of influence is either regional or national.

Employment Structure

This was as follows:-

	Male	Female
Partners	4	-
Qualified Assistants	5	-
Secretarial	-	5
Clerical (Senior)	3	4
Clerical (Junior)	1	1
Apprentices	6	1
Total	19	11

The accountancy firm is, on average, larger than the legal firm, and the staff breakdown has a different composition.

The routine clerical, secretarial class is in the minority (47 per cent compared to the 'Legal Profession's' 65 per cent) with the number of apprentices being considerably higher. A C.A. apprentice has a longer course (five years) than a lawyer, and has to pass exams to qualify. So, in practice, many so-called apprentices know the practical side of the business exceptionally well, but are not fully qualified. Consequently, the figure for apprentices is appreciably higher. However, although the staff structure in proportional terms is fairly representative in the legal profession throughout the range of size of firm, this is not the case with accountancy firms. This can probably be explained by the range of size of accountancy firms (from 1 - 90). The larger firms (five have a staff of 60 or more) tend to employ more apprentices (one has 24), while there is no significant hierarchical increase in secretarial or clerical staff as the firm's size increases. This can be explained by the nature of the firm and the work it carries out, for example, the larger firms are branch offices and some of the routine work may be delegated to head office. On the other hand, the smaller firm which in most cases has a larger routine than a skilled labour force, may have to employ a fixed number of clerical workers to maintain a certain level of business. (As in economics, this can be classed as a 'fixed' cost because additional skilled personnel and increased business may require few, if any, additional routine workers.) Recruitment is a difficulty for the legal profession, but only 3 out of 21 accountants thought that staff was not easy to recruit.

Methods of Communication Used

The main method of contact that firms use depends on the nature of the office itself. The smaller firm serving the local area usually has clients coming to its office with their books, but the larger firm sends out a large proportion of its qualified staff and apprentices to conduct audits up and down the country. On visiting an accountancy firm which employed a staff of 90, only 30 personnel were working in the office that day (they were the administrative staff).

Face to Face Contact Patterns

Although accountants did not think they had to be in close proximity to any particular office, their linkages with the business community in the centre are quite important. (Table 4.5.)

As in the legal profession, private messenger is a key method of communication. (This is a good indicator for strong personal contact in the centre.) Accountancy linkages are, as expected, stronger with the rest of the professional community (this includes 'Finance' and 'Insurance') than with any other type of firm. Contact with the Inland Revenue and the Registrar's Office is in many cases daily, so this explains the high rating for 'Central Government'.

Office Mobility

In the last ten years only one-third of the offices had moved premises and, although three of these moves were short distance ones, the remainder showed a significant movement away from the main central office zone to the outer peripheral zone. The larger firms had notable increases in staff (23 to 69, 35 to 60, 17 to 49) so either lack of space, the consolidation of scattered offices or the inadequacies of their old building were given as reasons for moving out of the core of the central area. However, few firms anticipate any significant increase in personnel in the next five years, and this is reflected in the number of firms who anticipate moving in the future (only 3 out of 21). These are small to intermediate-sized firms who are finding the increase in rateable values and the inadequate car parking facilities uneconomical for their business. Two out of these three companies are happy with their present location. However, these two accountancy firms may move to the edge of the 'Inner Suburbs'. The other firm, although unhappy with its present location, does not wish to move out of the central area. Tradition is the main reason for this firm remaining in its present site. Nevertheless, some movement outside the central area could be a possibility in the future. Three other firms do not anticipate moving in five years' time, but if conditions are suitable, two would move to the suburbs (a suburban house not too far away from the centre was mentioned), while the other is willing to move to the 'Inner Suburbs'.

Unlike the legal profession, accountants do not have the same tying factors which make a central location absolutely essential. There has been a gradual move outwards from the core of the central area in the last ten years, and this trend looks as though it will continue into the inner suburbs in the future. Although some of the accountant's work is done away from the office, linkages with the business community in the centre are still important enough for relocation decisions to be considered in terms of travelling time from the centre.

Table 4.5. Face to Face Contacts with the 'Accountancy' Sector.

Clients	59.5
Banks	56.0
Central Government	53.6
Legal Profession	51.4
Finance	45.7
Insurance	44.3
Accountancy	43.6
Competitors	43.6
Office Suppliers	39.0
Associations	35.7
Other Professionals	35.0
Travel Agents	34.5
Property	32.1
Local Government	29.8
Business Services	27.6
Manufacturing	25.5
Construction	24.5
Advertising	16.4
Mean	38.8

Other Professional

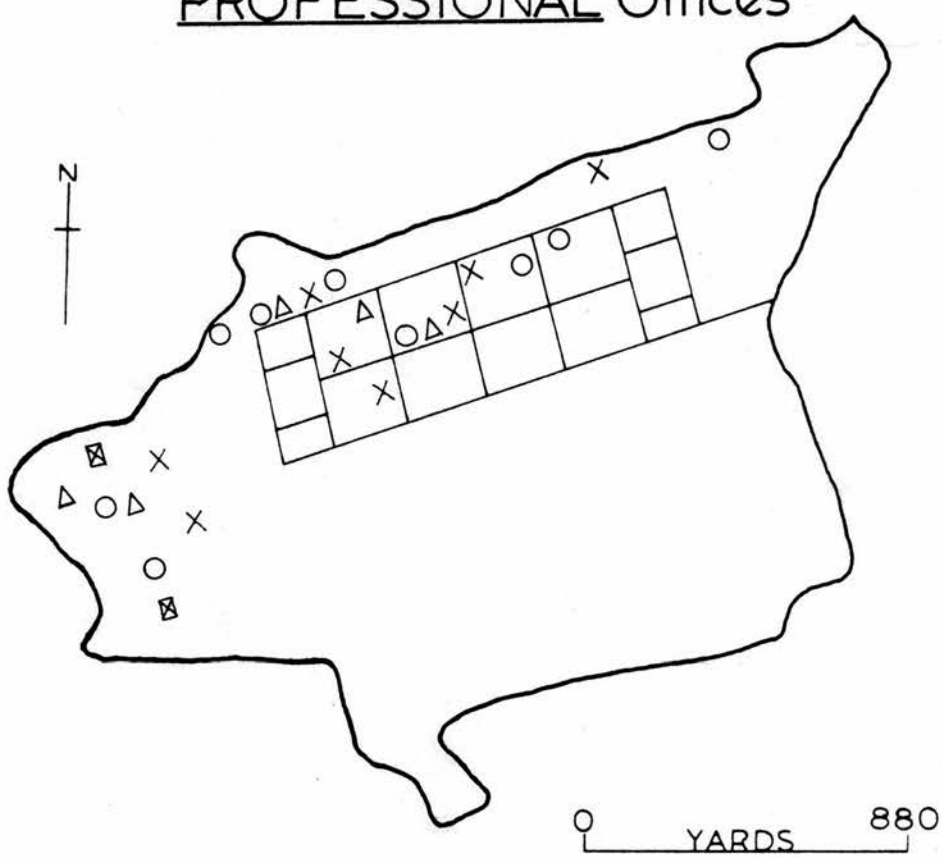
Location and Composition

Unlike legal and accountancy firms, firms in the 'Other Professional' sector have only recently been established in central Edinburgh. They have a high degree of office mobility - continuing the movement to the suburbs which has occurred over th last few years. 24 firms were visited, the sample comprising 2 town planning consultants, 5 surveyors, 9 architects and 8 consulting engineers. These firms are evenly spread throughout the main office zone in the central area (Figure 4.6).

Nature of Office

Most of the firms are independent, but five of the engineers and two of the town planners are part of national organisations (two engineering firms have their head office in Edinburgh). So, although these firms serve the whole of the country, the majority of the firms cover the regional or Scottish market. This professional sector is not so well established as the others Only 10 out of the 24 firms were established before the war, 4 were created in the intermediate era, 1945-59, and the remainder came to Edinburgh within the last ten years. All six of the

Fig.4.6 Location of OTHER PROFESSIONAL Offices



KEY

O	Architects
X	Consulting Engineers
Δ	Surveyors
⊠	Planning Consultants

branch offices were set up in the last fifteen years, while five new firms were created. The engineering firms (seven out of eight were established since 1945) and the planners were the groups who have been in Edinburgh for the shortest duration.

Employment Structure

Although the average size of firm is small (19), one engineering head office employs 126 and another surveying firm has a staff of 70. Overall, the surveyors and engineers employ a larger labour force than the architects and planners (on average 25 compared to 12). One feature that they all have in common is the predominance of a skilled male labour force. Most firms have a ratio of 4:1 with the female staff being almost totally secretarial. The numbers of technical staff are high because, if the draughtsmen, engineers or surveyors are unqualified, they were classed as technical (they comprised one-third of the total labour force with most firms).

Methods of Communication Used

Telephone, correspondence and visiting away from the office are the main methods of communication used by firms in this sector. Although the engineers and the planners tend to work away from the office, they have the more recent methods of communication installed in their office (one engineering firm has telex, while a planning office and a consulting engineer have a private line to each other).

Face to face contacts are important, with the 'Other Professional' sector appearing high in all the contact tables (Tables 3.7, 3.9 and 3.10). Locationally, 38 per cent of the firms do not have to be close to any particular firm, while a similar percentage stressed the importance of linkages with firms in the same sector, for example, architects, surveyors and engineers are all closely knit on the same building project and are mutually dependent on each other. Table 4.6 shows the linkages that firms in the 'Other Professional' category have with other sectors. 'Construction' heads the list because it is the builder who tenders most of the sub-contracting to the engineers, architects and surveyors. 'Local Government' and 'Central Government' contacts are important for two reasons. In some cases the firms are actually employed by the Government on contracts, in other cases they have to meet goverment departments to discuss planning proposals.

Office Mobility and the Demand for Office Space

Staff changes over the last ten years have tended to vary a great deal. Recently there has been a contraction in the amount of work tendered in the building industry, so there has been less work for this sector. Employment has suffered in some cases, especially the architects, but the larger firms have continued to expand. However, the companies hope that this lean spell is now behind them, and no-one anticipates a decrease in staff in the future, although large increases are not envisaged either. Some of these firms gave the reason 'lack of space' for moving to their present premises. Mobility was not very important in the last ten years, but this can probably be explained in that about half of these firms have only been in Edinburgh for twelve years or less, so they may be recent arrivals to their present site. However, all of the surveyors moved in the last ten years, with four out of the nine architects, two out of eight engineers, and one out of two planners also moving. These moves were all within the central area, but with no clearly defined pattern.

Firms Anticipating a Move

In the next five years 50 per cent of the firms anticipate moving. Whereas all of the surveyors moved premises in the last

Table 4.6. Face to Face Contacts with the 'Other Professional' Sector.

Clients	54.6
Construction	53.1
Banks	52.5
Local Government	44.8
Central Government	41.7
Office Suppliers	40.8
Competitors	38.3
Other Professional	37.9
Legal Profession	36.7
Property	36.0
Travel Agents	34.6
Accountancy	33.5
Business Services	32.7
Insurance	30.0
Associations	29.8
Finance	29.6
Manufacturing	29.0
Advertising	10.4
Mean	37.0

ten years, none of them anticipates a move in the future. Architects and engineers are the groups with most mobility. As much of their work is done away from the office (often at the site), car transport is imperative to their business, so it is not surprising that 'inadequate car parking facilities' was the main reason given for these firms wanting to move. The Corporation has introduced new proposals which extend the metered zone to an area of 4½ square miles. So even the firms on the periphery of the central area will be affected by these measures. The increase in rent and rates was also mentioned, so it is clear that it is becoming uneconomic for these firms to remain in the centre.

Preferred Locations

22 out of the 24 firms are satisfied with their present location, but only 58 per cent of them require a central area site for their business. This is the third lowest figure of all the sectors (Table 3.12). Already several consulting engineers and architects have moved out of the centre, occupying castles and country mansions in peripheral locations (see Fig. 3.4). This trend looks as though it will continue, although surveyors show a reluctance to move away. Only two surveyors would

consider moving, and this would only occur if the conditions are suitable at the time. Even at that, movement would only involve short distances to the edge of the 'Inner Suburb s' zone. Architects are different. Two firms are dissatisfied with their location, one indicating they would move to the north-west suburbs, while the other may move to the suburbs (without stating a preferred location). Four other architects prefer their present site, but anticipate moving in five year s' time. Their preferred locations vary markedly. One did not specify a site, while another is moving to the north edge of the 'Inner Suburbs' to a converted warehouse. In this case moving out of the centre could have been a solution, but, because two of the firm's secretarial staff come from East Lothian, it did not wish to lose them by moving to a remote site. The third firm may move to the southern suburbs, while the other firm gave a whole range of possible sites both in the central area and the suburbs. The type of site that is sought has 'character', so that a suitable image can be maintained. Two other architects could not foresee a movement within five years, but they may move to either the northern suburbs or Bruntsfield, in the west of the 'Inner Suburb s' zone, if the present parking problem is aggravated.

Four consulting engineers may move in the future. Of these, one firm's intention to move is speculative, but the three other firms are more likely to move within the next few years. One move could be to the edge of the central area, but the others involve greater distances (to Kings Buildings or the south-west suburbs). Both planners would definitely be moving in the near future. One is moving back to the south-east of England, as the firm has a temporary base in Edinburgh to carry out a project for the Corporation. The other needs new premises because of the cramped conditions in its present site. However, its contacts with the property field are strong, so the organisation would be moving, if anything, nearer to the core of the central area.

Firms in the 'Other Professional' sector are more dynamic than firms from the other professional categories. They are more recent arrivals to Edinburgh, and are still foot-loose when making their locational decisions. Although their linkages are important in the centre, much of their work is done away from the office, and representatives from many firms did not think a central area location essential. However, economic considerations are making many firms decide to leave the centre; restrictive car parking measures and future rental increases could be important in accelerating this process further.

Manufacturing Offices

Location and Composition

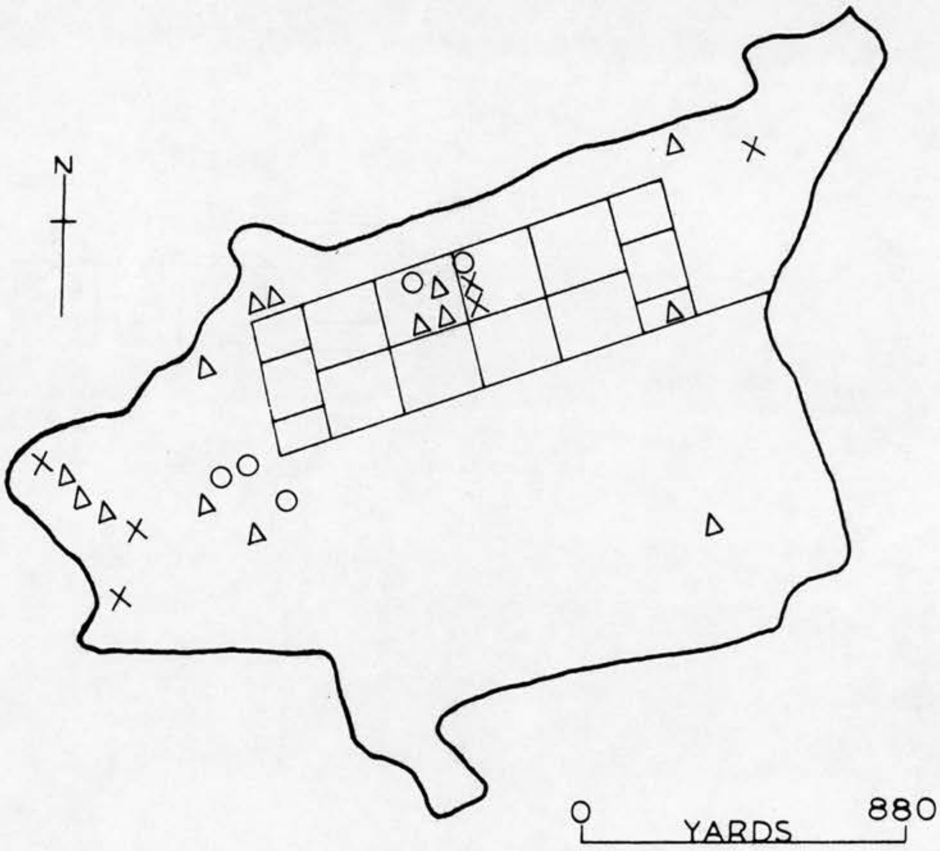
The sample taken in the study reflects the analysis of Edinburgh's employment structure in Chapter 2. With the 'Professional', 'Banking', 'Insurance' and 'Government' sectors accounting for most of the employment, 'Manufacturing' was fairly insignificant. Whereas most European capital cities have a high percentage of manufacturing firms' headquarters and a more even distribution of employmant (by sector), Edinburgh has none of these characteristics, for Glasgow is the commercial capital of Scotland. In Edinburgh's industrial structure, Food, Drink and Tobacco were the main employers in the Manufacturing category, and this is endorsed in the sample. 25 firms were visited and three types of firm were identified: the alcoholic beverage industry, offices associated with the building trade and the miscellaneous manufacturing office, representing any firm classified as Manufacturing in the Standard Industrial Classification

1968. Their distribution is mainly confined to small office suites and other converted premises located in clusters in the main central office zone, especially in the West End (see Fig. 4.7).

Location of Factories and Warehouses

All of the firms are attached organisationally to warehouses or manufacturing plants. Out of the 279 firms in the complete sample, only 53 have any links with these non-office establishments (see Table 4.7) further endorsing this administrative structure which Edinburgh maintains. In the alcoholic beverage group, one firm represents several breweries located in London and Dublin, while the other five companies are involved in the whisky trade. The whisky industry has several distinct processes from distilling to blending and maturing, and finally, bottling. The largest firm, D.C.L. has its distilleries within the Edinburgh area, one in the centre employing 571 and the other at Kirkliston with a staff of 333. Another branch office of an international distillers has its main distilleries in Speyside, but its warehouse for distribution is in Livingston. The smaller firms are more concerned with the blending and bottling aspects of the business, and have their main warehouses at Leith and other ports, while the

Fig. 4.7 Location of MANUFACTURING Offices



KEY

○ Building Trade Manufacturers

× The Drink Industry

△ Miscellaneous Manufacturing

bottling plants are within close proximity of Edinburgh (Newbridge and Airdrie). Out of the five firms who act as suppliers to the construction industry, four have quarries and manufacturing plants in the Borders or North England. The only exception to this is an agent for wooden houses - the manufactured product coming from Devon, Copenhagen or Norway. In the miscellaneous manufacturing category, six firms had their main plant in the South East, three in North West England, one in Grimsby with the other four in Scotland. One interesting feature is that the two office supplies firms have their main factories at East Kilbride and Cumbernauld (two of Scotland's new towns).

Nature of Office

The whisky industry has a large overseas market and three out of the six alcoholic beverage firms serve areas abroad. Two of them are head offices, while the other is an independent firm who bottles and blends for the international market. The other firms are branch offices, one, representing Harp Lager and Guinness, is responsible for sub-offices throughout Scotland. These offices are regional sales offices covering the whole of Scotland. Two of these three branch offices have been recently established in Edinburgh, coming to the city within the last five to seven years, whereas all of the others have been in the city for over 30 years (or in some cases for centuries).

Table 4.7. Firms Attached to Non-Office Functions

	(a) Firms who are not attached to non-office functions	(b) Firms attached to shop	(c) Firms attached to ware-house or store	(d) Firms attached to a manufact-uring plant	
Finance	21	-	-	1	22
Insurance	28	-	-	-	28
Property	17	-	-	-	17
Legal	28	-	-	-	28
Accountancy	21	-	-	-	21
Other Professional	24	-	-	-	24
Manufacturing	5	-	5	20	25
Construction	11	1	7	2	21
Travel Agents	5	-	2	-	7
Business Services	13	-	1	6	20
Advertising	10	-	-	-	10
Associations	25	-	-	1	26
Government	6	-	2	4	12
Banks	17	-	1	-	18

TOTALS: (a) 226; (b) 1; (c) 18; (d) 34; GRAND TOTAL: 279

Table 4.8. Face to Face Contacts with the Manufacturing Sector.

Clients	55.4
Banks	41.4
Other Professional	40.8
Travel Agents	34.4
Construction	34.2
Competitors	31.8
Manufacturing	31.8
Central Government	30.6
Associations	29.8
Office Suppliers	29.6
Local Government	29.2
Insurance	26.6
Legal Profession	25.2
Accountancy	23.0
Business Services	22.4
Property	20.4
Finance	19.0
Advertising	16.4
Mean	30.1

Most of the other firms are branch offices serving Edinburgh, Fife and the Borders, or in some cases the whole of Scotland. However, a firm which manufactures loose leaf covers is a branch office responsible for sub-offices. The factory is on the ground floor where accessibility for unloading is easier, the offices being located on the third floor. Five offices have established new branches in Edinburgh within the last ten to fifteen years (one in the building trade, four in the miscellaneous category) and two others (miscellaneous) have moved their regional sales office from Glasgow to Edinburgh.

Employment Structure

'Manufacturing' has the lowest average number of staff per office (12) than any other sector. This figure would be lower if the alcoholic beverage sector is omitted. Of the companies interviewed, this group has an average of 25 staff/office, the building merchants 4, and the miscellaneous category 8. In some cases these firms have a small office staff, but a large tradesman staff who work from the office servicing the manufactured product, for example, two lift companies. The numbers for D.C.L. should be considerably higher than the figure given (50). This is the number of staff working at the administrative head office. Throughout the West End, Distillers have a total of 337 employees (larger than the total for 'Manufacturing' altogether) spread out over nine offices. They have two smaller offices in the East End employing 26. These offices all perform head office functions, including share registration, computing, pensions, investment, insurance and production, but they act as self contained individual units. Naturally, a high percentage of skilled staff is required for much of this work, but about 40 per cent of the total staff is secretarial or clerical, dealing with orders, registration and other routine tasks. The builder's merchants employ two professional staff with secretaries, whereas the other manufacturing categories place more emphasis on technical or sales force staff.

Method of Communication Used

Telephone, correspondence and visiting away from the office are the main methods of communication used by firms in the 'Manufacturing' sector. The larger firm with head office functions has much administrative business to conduct, while the branch office tries to promote the company in its region, so its representatives and other sales staff are out in the field seeking new business. Telex is used by the head offices of the whisky firms, so that orders can be taken throughout the country and abroad, and two other firms have telegraphic addresses. Representatives have few meetings with members of other organisations at their own office. Some representatives of miscellaneous manufacturing firms have no face to face contact at all with other firms at their Edinburgh office.

Face to Face Contact Patterns

'Manufacturing' firms score consistently low in tables 3.7, 3.9 and 3.10, which show contacts with other firms. When two diagrams were drawn based on face to face contacts and necessity of a central area location, 'Manufacturing' was on the periphery (see Figures 3.2 and 3.3). In the table of contacts (Table 4.8) 'Manufacturing' has weak linkages with most firms - with only 'Other Professional', 'Travel Agents' and 'Construction' being of any significance. Builders' agents are responsible for the high figure for 'Other Professional' and 'Construction', with architects being the main clients in their business. 'Travel Agents' receive a high rating because key managerial staff travel to London and abroad with regular frequency to attend conferences -

especially in the whisky trade. However, only 44 per cent of the firms gave any reasons for having a central area location (the lowest figure of all the sectors). The builders' agents require a central location because of their linkages with architects and surveyors, while two firms in lift manufacturing need a central site so that servicing of lifts throughout the city is more convenient. Office suppliers need a central site for similar reasons - so that distribution is easier, plus the added inducement of a good passing trade.

Although linkages with the 'Manufacturing' sector are weak, some exceptions do exist. D.C.L's administrative office does not have important linkages, but if the whole of the head office departments are considered together, daily contact with most types of firm would occur. The two office suppliers firms also have stronger linkages with the business community than the other manufacturing firms because all offices are dependent on this type of firm at some time or another, for example, office suppliers on 36.2 come high up in Table 3.7 on face to face contacts with the 279 offices visited.

Office Mobility

Although 14 out of the 25 firms moved premises in the last twenty years, these moves were the shortest observed from any sector (firms often moved along the same street or to adjacent streets). The main reasons given were that their office was required by the firm who owned the property, so they had to look for new premises. This trend is continuing, and is one of the main reasons along with increasing rents or rates and car parking complaints, for firms anticipating to move in the future.

22 out of 25 firms are happy with their present location. The three dissatisfied firms are moving within the year: a whisky firm is moving out to its warehouse at Airdrie, a building agent is going to Morningside (southern suburbs) and a paper machinery company is moving out to Currie in south-west Edinburgh. Of the firms who are satisfied with their location but anticipate a move, only one intends to remain in the centre (a building agent). One building manufacturer may close its Edinburgh office to operate from its quarry at Gorebridge. Two other manufacturing offices may move to Bruntsfield and the outer south-west suburbs. Two of the larger firms (including D.C.L.) are giving some consideration to a move in the future. D.C.L. operates very well at the moment with all its offices in close proximity to each

other. However, if departments expand and require more space, it is possible that the company may require a large building to consolidate these scattered offices. The loose leaf cover firm has the problem that vertical integration is not so efficient as horizontal organisation. It is a possibility that the firm could move to an industrial estate in the suburbs away from its old fashioned building in the centre.

As the two largest firms in the sample appear to be happy in their present sites and all but one firm in the whisky industry will remain in the central area, it is unlikely that the 'Manufacturing' sector will have much effect on office location patterns in Edinburgh. Although much of their work is done away from the office, linkages are weak and there is not much necessity for a central location. Most offices are so small that the leasing of small office suites in the centre is more practical to the firm in its business.

St. Cuthbert's Co-operative

One firm which is difficult to categorise into any particular functional group is St. Cuthbert's Co-operative, whose main attachment is to retail establishments as opposed to warehouses and manufacturing plants. The firm's head office is in Tollcross, Edinburgh, employing 150 employees. About 90 per cent of the staff is clerical in character, 60 per cent female. The client tends to come to the office, so that queries about dividends can be clarified. Telex and private line telephone are also used, vindicating the administrative function of this office. Locationally, the office is well placed, so that it can serve the shops in the city and the satellite towns nearby. There is no pressure to move because of lack of space (the firm decreasing in staff from 230 to 150 in ten years) so, in terms of locational patterns in the city, St. Cuthbert's will maintain the status quo.

Construction

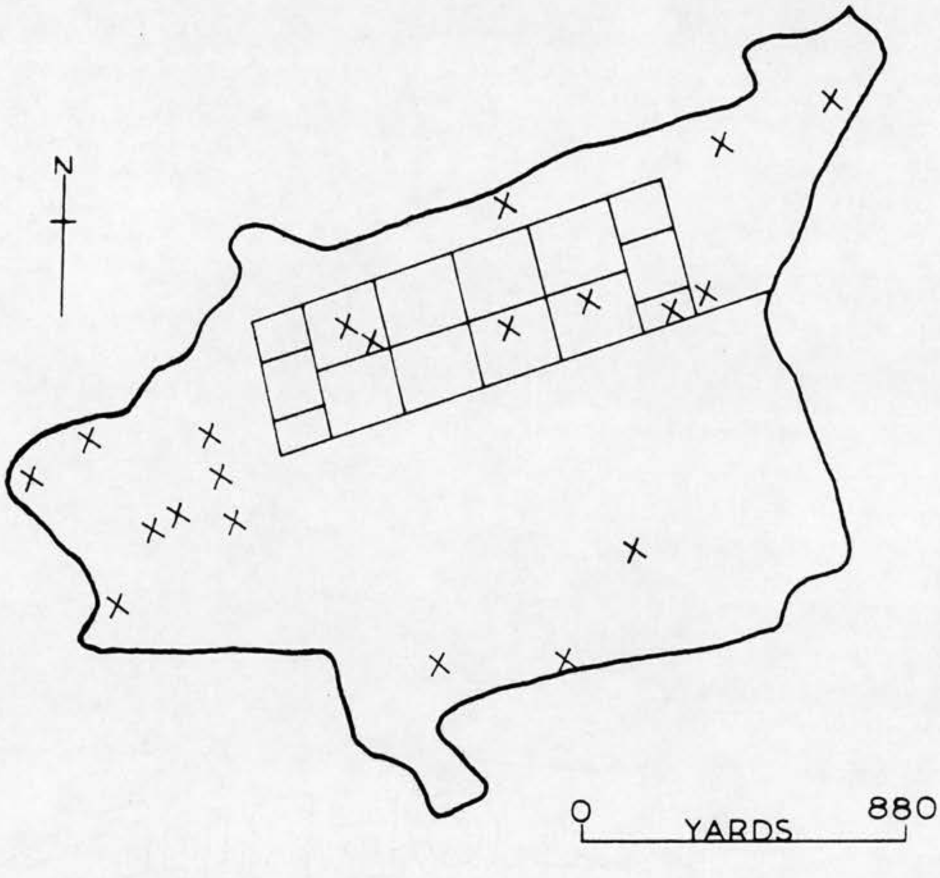
Location and Composition

The sample of twenty 'Construction' firms included building contractors, sub-contractors and other individual firms involved in the installation of household appliances. Roofing, flooring, ventilating, heating and glazing are all important aspects in the construction industry so, although contractors make up the majority of the sample, these other groups have not been neglected in the analysis. The firms are quite widely dispersed throughout the central area (Figure 4.8) with one noticeable cluster - at the West End. The three firms in the 'non-office' zone in the south central area are small companies involved in roofing and flooring, and are located away from the main office zone, so that they can have adequate space adjacent to the office for the storing of their materials and samples.

Linkages with Non-Office Establishments

As in 'Manufacturing', firms in the 'Construction' sector are also attached organisationally or physically to non-office establishments. All building contractors have sites and temporary yards wherever they happen to be building at the time. However, this is not classed as a linkage with non-office establishments, as it is not on a permanent basis. Only the larger firms have a permanent yard which is a base for various deparments (one in the north-west suburbs of Edinburgh, another at Bo'ness). The sub-contractors are attached to warehouses and manufacturing plants. The smaller firm has a store for the collection of materials for local jobs. Some of the larger

Fig. 4.8 Location of CONSTRUCTION Offices



companies receive the manufactured product direct from the factory (one in Glasgow, one in Sighthill) although in the former's case (central heating appliances) a large showroom/ store houses the product.

Nature of Office

Firms in the construction industry have only recently been established in Edinburgh (seventeen out of the twenty firms coming here since 1945). In the last fifteen years, five branch offices have been opened in Edinburgh, while six new firms have been created, two of which are head offices. Another firm moved its office from Bo'ness to Edinburgh in the hope that more business would be forthcoming in a more prestigious area. Most of the offices are branch offices; the six companies in the 'only office' category are either local sub-contractors or small private building contractors. Two head offices are contractors, one in building, the other civil engineering, while another two are involved in the installation of central heating appliances. One of these firms serves the whole of the United Kingdom, but overall the sub-contractors only cover the local region with the main contractors serving the whole of Scotland.

Employment Structure

318 people are employed by firms in the 'Construction' sector, 207 of ~~which~~ whom are male employees. The average figure is low (15) but once again a few exceptions have to be explained. Two firms have more than one office in the centre, so the staff totals recorded from the sample offices visited were not representative of these firms' total office employment in the central area. One firm is a head office, so the total of 95 (representing the administrative office) has a high percentage of clerical staff (about two-fifths). The firm's other office, with 125 employees, is more representative of the branch office construction contractor, with 66 per cent skilled male staff - comprising surveyors, architects and engineers. It has a smaller percentage of routine staff.

Methods of Communication Used

The 'Construction' sector is always in the bottom half of the face to face contact tables (see Tables 3.7, 3.9 and 3.10). Phone and correspondence are the main methods of contact used by these firms, although face to face contact is important with 'Other Professional', 'Local Government' and 'Manufacturing' (Table 4.9). As most of the employees in the construction industry are architects, surveyors or engineers, it is not surprising that the sector's main linkage is with the 'Other Professional' sector. 'Local Government' is an important linkage because the smaller firms are often employed by the County Council or the Corporation to carry out work for them on their property. As with the 'Other Professional' sector, 'Construction' has linkages with 'Manufacturing' because their supplies come direct from the builders' merchants in town.

The Necessity of a Central Area Site

With the exception of firms in the 'Manufacturing' sector, 'Construction' firms have the least reason for a central area location of all the other sectors (Table 3.12). The firms who need to be in the centre are those with showrooms, so that maximum client contact can be made. The small independent firm finds the centre more convenient as a base for jobs it has throughout the city, while three firms consider their linkages with the professional core too important to be broken.

Office Mobility

Although most of the firms have only established themselves in Edinburgh over the last ten to twelve years, mobility has been

Table 4.9. Face to Face Contacts with the 'Construction Sector'.

Clients	59.0
Banks	47.5
Other Professional	46.5
Local Government	42.8
Manufacturing	40.5
Office Suppliers	37.8
Travel Agents	35.5
Legal Profession	35.3
Construction	34.3
Insurance	33.0
Competitors	32.0
Central Government	28.0
Accountancy	27.8
Business Services	26.5
Property	23.5
Advertising	22.5
Associations	22.5
Finance	22.0
Mean	34.3

fairly significant during this period, with seven out of the twenty firms having moved to their present site. Three firms moved very short distances within the central area, but the other four showed conflicting patterns. Two firms moved into prestige sites in St. Andrew Square and George Street from Bo'ness and south central Edinburgh respectively. As they had insufficient prestige in their former sites, they hoped that new business contacts would be made in the main office zone. The two other firms moved out of George Street and Queen Street to less prestige sites in the main central office zone. As these firms were established in the late 1940's, it can be assumed that their main business contacts are now crystallised, so that moving out of costly prestige sites is economically feasible without breaking any business contacts in the centre.

Firms Anticipating a Move

As their linkage patterns are weak, and most firms do not require a central area site, construction companies should be susceptible to decentralisation. In reality only four out of twenty firms are dissatisfied with their present locations. However, all of these firms are anticipating a move in the near future. Two firms are sub-contractors, one moving to its yard at Sighthill (outer western suburbs), the other hoping to centralise its store and office in the same premises at a site outside Edinburgh (so that it could receive a government grant). A small building contractor firm is moving to similar premises for the same reason, but the main move will be the decentralisation of the largest building contractor in Edinburgh from George Street and Thistle Street to premises adjacent to the firm's yard at Craigleith (north western suburbs). This latter firm's premises are overcrowded and the problem is aggravated by inadequate car parking facilities (15 spaces for 200 employees). A move out is the only solution. Four other firms anticipate moving in the next five years, with two hoping to remain in the central area. These firms have only been in Edinburgh for a few years, so they are not keen to move out. However, the other head office, which has already moved from George Street to the West End, anticipates moving out to a 'bus route' suburb because of insufficient car parking facilities in the centre. The other firm will move back to Newcastle, as it only rented temporary accommodation in Edinburgh while completing a contract in the city.

Three other firms may move if conditions are suitable. One firm has three offices scattered throughout the West End, and would prefer to bring them together. The organisation would not move out of central Edinburgh as most of its business is conducted throughout the Lothians, and the centre is ideally placed for this. However, one of the other firms foresees a return to Bo'ness if business improves. The main reason for coming to Edinburgh and renting costly prestige premises was to make new business contacts. If this is achieved, the firm believes that it can maintain the new level of business outside the city. The firm who moved into George Street to acquire more prestige may move again. Business has been satisfactory, but the rateable value of the property increased 60 per cent on revaluation in 1971, and subsequent increases in rate poundage have affected profit margins. If the firm moves out, it may lose business; if it stays in its present premises, it would probably have to increase its prices to the consumer and thereby risk the possibility of losing custom. One of the solutions is to remain in proximity to George Street, but not in such a high rated area.

Although linkages are not very important, and a central area site is not essential, the crucial factor which determines whether construction firms remain in the centre or not depends on the length of time they have been in Edinburgh. New firms come to the centre so that they can establish business contacts: once this has been achieved they can maintain these linkages from outside the centre. The exception is the small firm who finds it more convenient to have a central base so that its tradesmen can have maximum accessibility to jobs throughout Edinburgh. Offices with showrooms and therefore much contact with the general public also prefer to have a central site.

Travel Agents

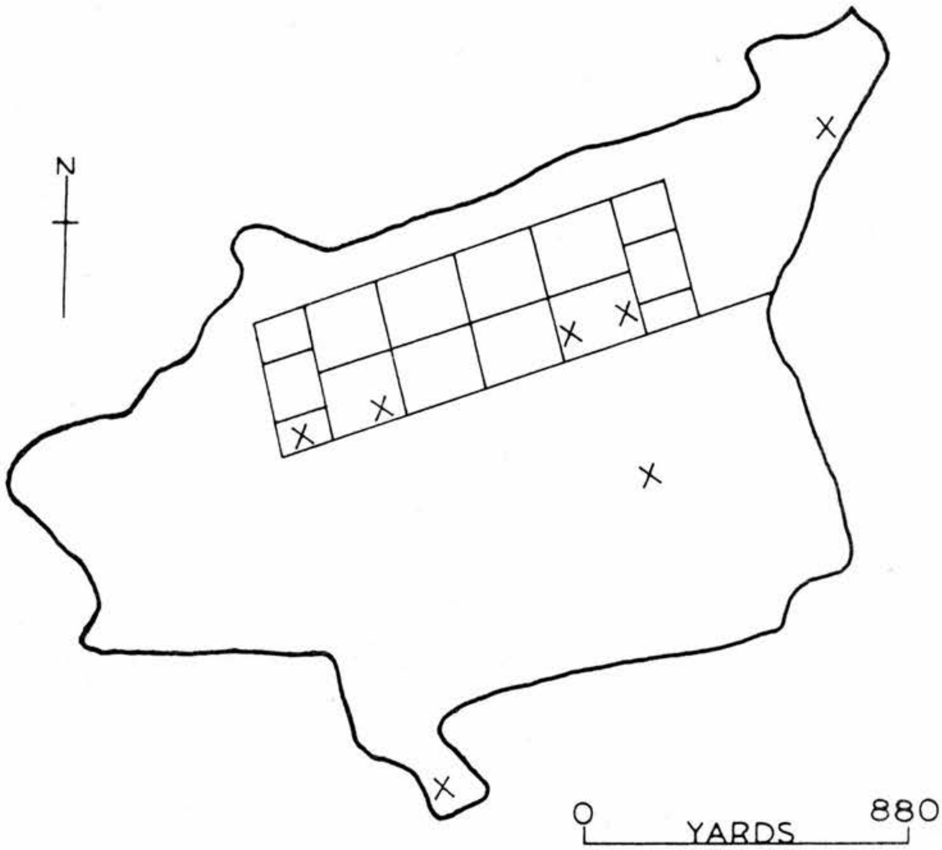
Location and Composition

In some office studies travel agents have been omitted because they were functionally defined as retail instead of office establishments. In this study travel agents come into the office category although it must be accepted that a small part of their business has retail characteristics. A travel agency performs four major functions: car hire services, retail package holidays, business requirements and group travel. Of the seven offices visited, the four agencies located on, or adjacent to Princes Street cater for most of these functions (see Figure 4.9). The firm in the north-east deals solely in the car hire business; the company in the Royal Mile caters for group travel, while the agency in the Tollcross shopping area is involved in retail package holidays. All of these firms have one thing in common - they are all strategically located, so that maximum contact will be made with the general public and the tourist, as they are all situated in either the main office or shopping zones, or the main tourist attraction areas.

Nature of Office

Three out of the four firms in the Princes Street zone are nationally known firms with an office in most of the major cities in Britain and abroad. They employ from 30 to 80 staff, while the other offices vary from 5 to 10 employees. The firm employing 80 workers is a head office, with three-quarters of its staff female, while the other firms, without the same administrative functions, have a more even distribution of male/female staff (one local firm said that it was a head office,

Fig.4.9 Location of TRAVEL AGENTS



but this was only because it had another small office adjacent to its car hire yard). About 70 per cent of the staff is clerical or counter staff with a strong emphasis on management training.

All of the firms, with the exception of the two in the southern central area, were established in Edinburgh before 1945. Both of these firms were independent, but recently the Tollcross agency was taken over by one of the main organisations. However, the company in the Royal Mile maintains its independence, dealing almost exclusively in the tourist trade, booking foreign visitors on group travel packages.

Main Method of Communication

The three major companies in the Princes Street zone plus the agency in Tollcross depend primarily on clients coming to them for business. Retail package tours account for the trade of most of these firms. The Tollcross agency specialises in this function which possibly accounts for its location - in the main shopping precinct, which serves the southern inner suburbs of the city. The larger companies are also involved in the other agency functions, but although personal contact is important at some stage, phone or letter are the main methods of contact used in transactions with clients. However, it is important to these firms that they are located in the main office zone as well as the best shopping area. Businessmen often need air tickets urgently, so it is essential that the agencies are located in close proximity to the office zone, so that a private messenger can deliver the tickets. Although personal contact is important, these firms have installed telex and private line telephones because of the extent and urgency of their business.

Face to Face Contact Patterns

In an earlier chapter, the weak linkage pattern in the overall sample which contrasted markedly with the sector contact score (Tables 3.7 and 3.10) was explained by a travel agent's dependence on the general public and the business community for trade, sometimes passing trade. Business offices, on the other hand, do not depend on travel agents to the same extent, so linkages may be particularly weak in some quarters, for example, with firms in the 'Business Services' sector. However, it is important for travel agents to be at the nerve centre of the city. In Table 3.12 they have the most need for a central site and in Table 3.11 they are second only to lawyers in the importance of contacts with other firms in the city. The contact score of 39.7 is in many ways misleading (Table 4.10). The four firms in the core of the central area cater for business trips so daily/weekly links are common with all the sectors. However, the three other firms make up for this with their weak contact scores (about quarterly). In this case the firm is very dependent on the general public for clients, so contact is not so much with a firm or a sector, but with individuals. The links travel agents have with hotels and other cities are particularly important. Hotels are, of course, part and parcel of an agency's business, the booking of rooms for visitors is an everyday occurrance. The major firms send officials of their organisation to London or other major cities as often as once a week for important meetings at head office, or for conferences with other competitors.

Office Mobility

Only three out of the seven firms moved premises in the last ten years. Of these, one of the larger firms moved from the centre to the west end of Princes Street. The car hire firm was in Princes Street, but moved to its present premises in Picardy Place because of lack of space. However, as it is not involved in retail package tours, the onus on a high-rated site is not essential. The Tollcross agency had a contrasting problem. This firm was previously located at Bruntsfield on the edge of the Tollcross shopping area and outside the study's central area. However, business was poor because the location of bus stops, in particular, did not engender pedestrian movement past the office. People coming to shop would never pass the office on foot, so the firm unnecessarily lost business. To remedy this, a central office site was acquired in the heart of the shopping area, and as a modern redevelopment scheme is envisaged in the future, the move could be very profitable.

Only two firms anticipate moving in the future. The car hire firm's premises are due for redevelopment, so it is moving to a new office block a 100 yards away. The head office, located at Hanover Street, is becoming increasingly congested, but it is already planned that some of the routine functions will be decentralised to Corstorphine or Sighthill,

Table 4.10. Face to Face Contacts with the 'Travel Agents' Sector.

Clients	60.0
Banks	60.0
*Hotels	56.4
Competitors	48.6
Travel Agents	47.1
Insurance	46.4
*Other Cities	45.0
Central Government	42.1
Accountancy	40.7
Legal Profession	40.0
Associations	40.0
Local Government	38.6
Finance	35.7
Other Professional	35.7
Advertising	35.0
Manufacturing	33.6
Property	30.7
Office Suppliers	29.3
Construction	26.4
Business Services	25.0
Mean	39.7

*The mean of 39.7 excludes Hotels and Other Cities.

with all the retail package tour and business requirements side of the business (including the Edinburgh branch) remaining behind.

All of the firms are happy with their present location, with the exception of one. However, this firm does not anticipate a move in the next five years, and would only move to a central area site. Travel agents cannot move out of the central area even if the staff are unhappy with their present premises. The Bruntsfield example outlines the importance of not only locating within the central area, but to do so at a site which has maximum accessibility to the public and the tourist. The major firms locate along the Princes Street axis because visitors have heard of Princes Street, and they will be able to find it because of its proximity to the railway station and bus station. Indeed, travel agents provide the economic geographer with an ideal example of optimal location decision making.

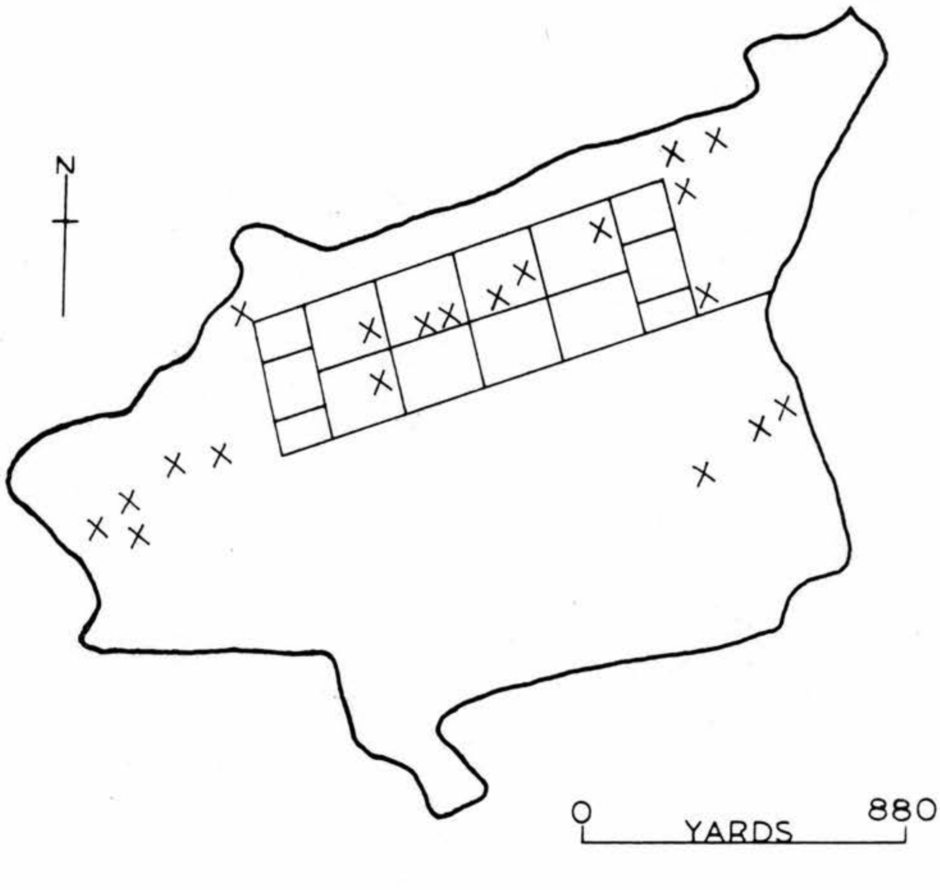
Business Services

Location and Composition

Firms in this sector are very similar to travel agents in that their location is determined by the locational decisions of others. Travel agents locate in the main shopping, office and tourist areas. Firms in 'Business Services', as the name implies, depend on the business community for custom, therefore they locate in the main office zone. The services in the sample of twenty include typing, photocopying, employment agencies, computer services, publishing and printing, and the newspaper industry. As can be seen from their distribution throughout the central area (Figure 4.10), these firms are located in either the West End or within proximity to George Street. The three exceptions to this in the south-east are a law publisher conveniently sited adjacent to the Law Courts and two newspaper companies. One, for reasons of space, is located in what Burgess (1925) would classify as the transitional zone of warehousing, residential and industrial premises.

In some cases a certain amount of overlapping takes place with firms in the 'Manufacturing' sector. Two firms, one in

Fig.4.10 Location of BUSINESS SERVICE Offices



computer services, the other in reproduction, both provide advisory services on how to achieve the best results with different types of machine and programs, but are still sales offices for these manufactured products. By definition, they come into either category. They are attached to non-office establishments (manufacturing plants). The supplies come from Greenock or London for the computer firm, from Hemel Hempstead for the name-plate reproduction firm. The firms in the publishing, printing and the newspaper industry are also involved in manufacturing processes. With the exception of two newspaper companies whose head offices, and therefore, printing and production departments, are in Glasgow, all the other firms have their printing departments in Edinburgh (all but one at the same address as their main office).

Nature of Office

With the exception of most of the firms in printing, publishing or the newspaper industry, all of the firms have been established in Edinburgh since 1945. Six new companies started up while seven new branches were opened in the city in the last eleven years (35 per cent of the firms only came to

Edinburgh in the last four to five years).

The firms involved in photocopying, employment or secretarial services are mainly local independent firms serving Edinburgh and its environs (although one employment agency has been taken over by a large London organisation). However, the sphere of influence of the computer firms and those in printing and publishing is much more extensive, covering the whole of Scotland and in some cases the United Kingdom and overseas. Two firms in the newspaper industry are only branch offices covering the Edinburgh region, while the other is the chief office for the whole of Scotland.

Employment Structure

The figure of 50 as an average size of office for this sector is completely misleading because of the dominance of the head office of a newspaper company which employs 696 (232 male and 464 female employees). Only 7 per cent of the staff is managerial or professional in character, the remainder is routine clerical staff. The newspaper branch offices, on the other hand, have a large reporting staff with a smaller percentage of clerical workers. The only other firms which have a labour force of any significance are those in computer advisory services who have a high proportion of skilled male consultants on their staff. The firm discussed earlier because of its dual role as a 'Manufacturing' and a 'Business Service' office, has a staff of 56 (39 male; 17 female), but it has an additional 46 engineers who service these computers throughout the city. However, the majority of firms are small, employing on average seven people, in many cases totally female. A secretarial firm has five offices in Edinburgh, with others in major cities in Scotland. The head office only employs 5 female managerial staff, but the combined total of all the Edinburgh offices comes to 43. All of the offices but one had a 100 per cent female labour force. The exception is the administrative office, which employs several male professional employees.

Main Method of Communication

Because of the varying functions that these groups perform, contact patterns differ according to group. Employment agencies, secretarial and duplicating services' main contact with clients is either by phone or correspondence, or primarily by the client visiting them in their office. The computer firms and the nameplate reproduction firm work away from the office, as they provide a consultancy service to other offices who have either bought their machines or who need advice on how to programme their computer. Publishers and printers do the bulk of their business by the client coming to them, but the newspaper firms, if a branch office with a large reporter staff, have most of their staff out in the field. The head office in the newspaper industry has so many different functions, according to department, that it is impossible to differentiate which is its main method of contact with customers. Modern methods of communication are very important to the newspaper industry. Telex is installed in all three offices, while a private line is used from these offices to the major sports arenas in the city. Information must be up to date and correct, so reporters radio in messages of the latest news on a particular feature. The reproduction and computer firm have telex so that orders can be forwarded from Edinburgh to head office or the factory itself.

Face to Face Contact Patterns

It would appear from Tables 3.7 and 3.10 that linkages with other firms are not important to the 'Business Service' sector. This is not the case. In general, these firms are dealing with individuals, not other companies, so when asked who their strongest linkages are with, they tend to specify clients, as opposed to any particular group. This is reflected in Table 4.11. Clients on

Table 4.11. Face to Fact Contacts with the 'Business Service' Sector.

Clients	57.8
Banks	49.6
Local Government	37.5
Central Government	37.5
Other Professional	37.0
Manufacturing	36.5
Legal Profession	36.3
Office Suppliers	34.3
Construction	33.8
Advertising	32.8
Accountancy	32.5
Travel Agents	32.0
Insurance	30.8
Associations	30.5
Competitors	30.0
Finance	30.0
Business Services	26.5
Property	24.5
Mean	35.0

57.8 are 20 points clear of the majority of the sectors, who, in turn are closely grouped together. Face to face contacts are necessary - 'Business Services' coming third in Table 3.11 and 80 per cent of the firms (Table 3.12) require a central area site.

Office Mobility

Although most of the firms only established themselves in Edinburgh over the last ten years, 50 per cent of the firms had moved premises within the central area during this period. The larger firm moved because of expansion plans, the very small firm because of high rates. Two firms moved from the West End to the George Street area as they found their old premises inconveniently located to attract the maximum volume of business. Seven out of the twenty firms anticipate moving within five years. Lack of space or the expiration of the present lease are the main reasons for moving. Only one firm is dissatisfied with its present location and that is the nameplate reproduction firm. Because of its 'Manufacturing' characteristics, a central area site is not essential for its business and the organisation is going out to Livingston new town so that its offices and warehouse can be centralised at the same site. All of the other firms who anticipate moving, plus three others who might conceivably move, are not leaving the central area.

The status quo will be maintained in the 'Business Service' sector. Although the newspaper industry has shown a decrease in employment in recent years and a further decrease is anticipated in the future, this should be balanced by the expansion and growth of firms in computer and secretarial services, where it is possible that new firms may be attracted to Edinburgh. Although office mobility is important, it is confined to the central area. Linkages are essential with the business community, so the firm must locate within the main office area. 'Business Service' offices in some ways resemble the branch offices of banks. Both serve a catchment area - the banks locating in residential as well as commercial areas, whereas 'Business Services'' hinterland is restricted to the commercial core. Nevertheless, as suburban office developments become more important, it is possible that some companies will go out to serve these areas.

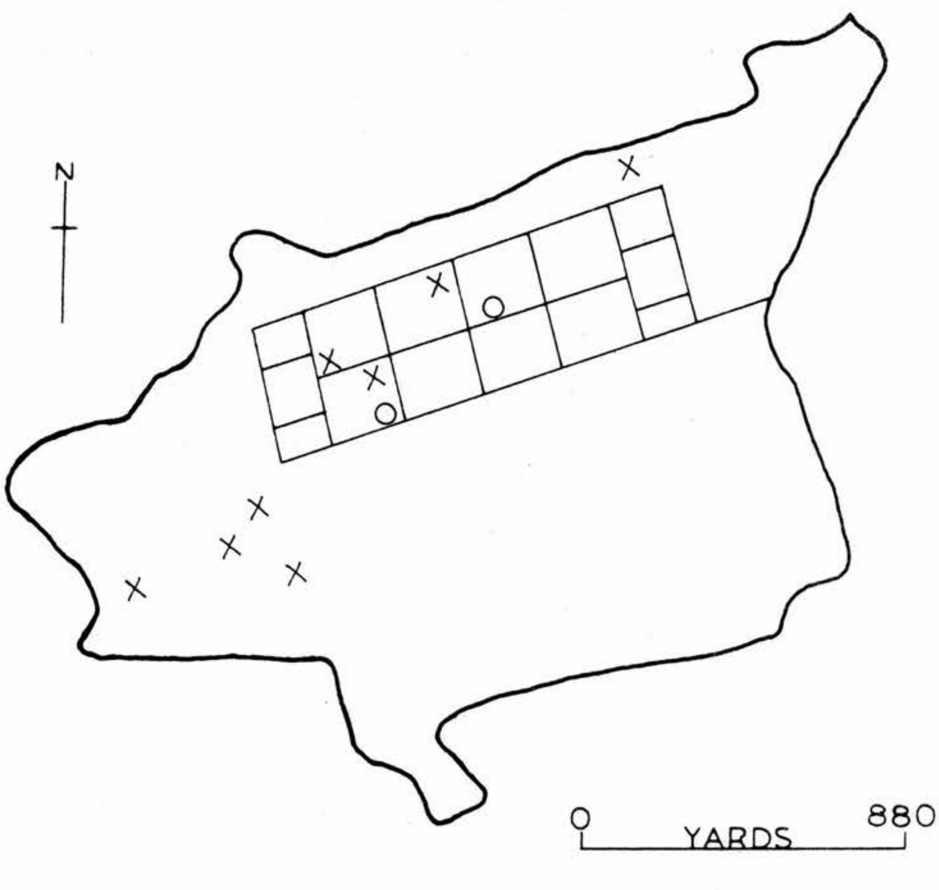
Advertising

Location and Composition

Because the total number of firms in 'Advertising' in Edinburgh is small, the majority of them were visited. Of the ten in the sample, eight were advertising agents, two advertising contractors. The agents with their posters, slogans and artistic techniques sell the name of companies over a wide market area, the contractors, on the other hand, attempt to contract for space in journals, magazines and newspapers to promote the advertisement. Although the firms are evenly distributed throughout the main central office zone (Fig. 4.11), there is an important cluster in the southern West End.

Moray Sladen states that location is immaterial (in reference to London and other cities of Great Britain) as all agencies have the same facilities to draw on and the same market area potential. (Sladen, 1971.) However, when referring to Edinburgh, she writes:'Watching Edinburgh advertising operate is rather like dancing with a woman in a crinoline. There is movement, but one can never quite determine how the movement occurs. The internationalism is cautious'. Most of the firms serve Scotland as an area (one contractor is confined to Edinburgh), but some of the larger agencies have gone to Europe to sell Scotland and Scottish products abroad. This has proved successful in the last few years, so this international outlook appears as though it will be maintained in the future.

Fig.4.11 Location of ADVERTISING Offices



KEY

X	Advertising Agents
O	Advertising Contractors

Age, Status and Employment Structure

Edinburgh has some of the largest agencies in Scotland and some of the smallest. The city has probably the oldest and the newest agencies. After the research material was collected a new firm came into operation. However, four agencies have been in Edinburgh prior to 1945, another three, plus one contractor were established in the early 1950's and one contractor and one agency started up in the 1960's. The majority of Edinburgh's agencies have grown from local beginnings with many local clients. Four firms (two agencies and both contractors) have only one office in operation for their entire business, while four other firms have expanded to such an extent that they have made their headquarters in Edinburgh with offices in other Scottish cities. The average agency employs 26 people, but this varies in the sample from 56 to 6. The two contractors, on the other hand, only employ a staff of 4 and 3. There is an even ratio of male/female employees, but whereas the girls are all clerical - secretarial staff (there is the occasional director or professional) the male labour force covers a wide spectrum of employment from the management level, to the technical staff in the studio, and to the representatives doing the field work.

Method of Communication Used

In many ways it is difficult to differentiate which is the main method of contact advertising firms have with their clients. Contacts made away from the office are the most important as managerial and representative staff are always on the lookout for new contracts and are willing to travel far afield to obtain new business. However, once the contact is made, future advertising campaigns for these firms may not require so much face to face contact until the final work is completed for release on the market.

'Advertising' is very similar to the 'Property' sector, and to a lesser extent 'Travel Agents', in that as a sector, it has strong contacts with a certain element of the business community (Table 4.12). However, the business community in Edinburgh rate 'Advertising' as their weakest linkage (see Table 3.7). Nevertheless, linkages with some firms are very important, so locational proximity to them is essential. Printers, block makers, photographers, newspapers and the railway station are imperative cogs in the advertising wheel. The contractor's linkages are not so strong as they are the liaison between the agent and the newspapers. The importance of the railway station is shown in that all the agencies (none of the contractors) use railway parcel service to transport their printed materials throughout the country. Modern methods of communication are fairly insignificant with only one branch office utilising telex so that it can keep head office up to date with the latest developments.

Office Mobility

Six out of the ten firms (all agencies) have moved premises in the last ten years. Lack of space was the main reason for moving, as most of the agencies showed notable increases in staff, two head offices growing from 15 to 56 and 25 to 35 respectively. However, three firms moved into the Rutland Square area, two for prestige reasons. It is possible that this clustering is similar to that of the investment trusts in Charlotte Square. As well as acquiring prestige, they are very accessible to visitors who wish to call on all the Edinburgh agencies in the one day. (London stockbrokers do this when visiting investment trusts). Nevertheless, one local firm moved out of the Square during this period because the rates were too high.

Table 4.12. Face to Face Contacts with the 'Advertising' Sector.

Clients	60.0
Business Services	59.0
Banks	58.0
Office Suppliers	54.5
Travel Agents	44.5
Competitors	43.5
Advertising	43.5
Local Government	43.0
Accountants	40.0
Legal Profession	39.0
Associations	38.0
Construction	36.5
Manufacturing	35.5
Insurance	32.0
Central Government	32.0
Finance	27.5
Other Professional	26.5
Property	24.0
Mean	40.9

Four agencies might move within the next five years because of further expansion plans. One firm anticipates doubling its staff from 17 to 34 during this period and visualises a possible move out of the central area altogether (it has already moved out of the Rutland Square area). Much depends on the success of international campaigns and the volume of business that is maintained in an overseas market. If the ratio of business swings away from the local and domestic market to the international market, a central location will be less essential. None of the other firms could foresee a movement away from the centre, although one small firm could follow in the footsteps of the above firm as it is moving out of the Rutland Square zone because the rates are too expensive.

It would appear that all of the firms who have spread their wings and moved into the European market have achieved success. Whether this factor is strong enough in itself to promote decentralisation is dubious. Although these agencies strive for a position in the national market, the local community are not being neglected, but are benefitting from experience gained on a wider front. The proximity to the newspaper industry and the railway station are important factors for remaining central and 80 per cent of the firms think that a central site is essential. All of the firms are satisfied with their present location so it would appear that if suitable premises are found even those anticipating a move would not go far. Advertising is a thriving business in Edinburgh and Moray Sladen says 'Perhaps one of the most noticeable signs of the healthy state of advertising in Edinburgh is the fact that good creative people no longer feel that they need to go elsewhere for fame and fortune. If anything, the trend is reversed, and some high powered types are settling here'. She concludes 'Agencies in other parts have been groaning about freezes, recessions and cut backs. Edinburgh, happily, has never noticed'. (Sladen, 1971.)

Associations

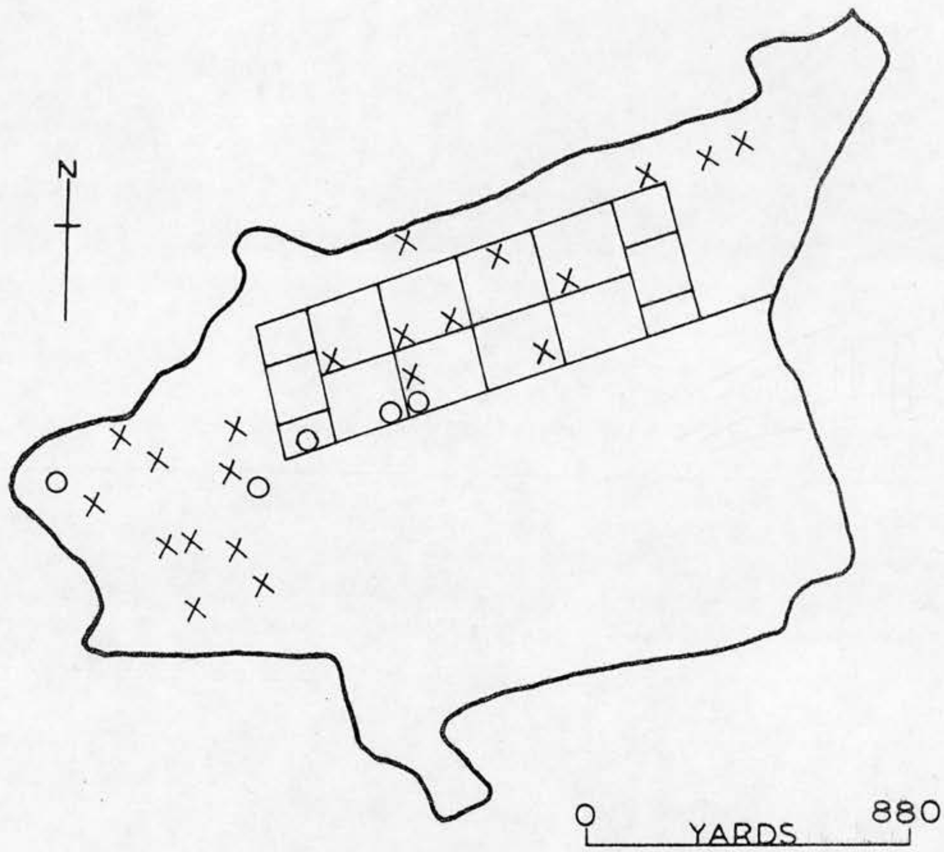
Location and Composition

'Associations' was the broad term given to all the offices in the miscellaneous category of societies, associations and councils. The number of these establishments in central Edinburgh is high (172) and 26 were visited. Out of the sample of 26, 5 are quasi-governmental bodies. They can, of course, be categorised in the 'Government' sector, but functionally they perform as individual associations, their only tying factor to the Government is that of fiscal aid. In fact, many of these organisations refused to be called quasi-governmental, as many of their projects are jointly subsidised. Therefore, the financial aid is indirect, as both parties benefit from such schemes. As can be seen from Figure 4.12, these associations are clustered at the West End and more evenly distributed in the centre of the main office zone.

Nature of Office

The setting up of headquarters of societies, councils and associations in the capital city has been commonplace for many years. 16 out of the 26 firms have been established before 1945, another 7 in the early post-war era, and only 3 came to Edinburgh since 1960. 20 out of the 26 firms are head offices, but the number of new additions coming to Edinburgh has been reduced to a trickle (only three, all head offices, were established in the city in the last fifteen years). Most of these firms are head offices for the whole of Scotland, while the other offices, whether branches or of an 'only office' nature, tend to serve Edinburgh and the surrounding district. This applies to the

Fig. 4.12 Location of ASSOCIATIONS Offices



KEY

X Associations

O Quasi-government Organisations

Chamber of Commerce and societies which deal purely with local problems, for example, the Georgian Society. One exception to this is the Scottish Ancestry Research Society, which has its sole office in Edinburgh, but caters mainly for overseas tourists of Scots descent who wish to trace their ancestry.

Employment Structure

The term head office tends to conjure up the impression of size and importance but, although over 70 per cent of these firms are head offices, in terms of employment they are insignificant. The government bodies bolster up the average (12) because two organisations employ 35 and 42. The two largest private associations have a labour force of 19 and 18, while the overall average is low (8). The female staff marginally outnumbers the male labour force. Although most of the women are secretaries or clerks, occasionally a professionally qualified girl takes up employment in youth organisations and The Ancestry Society's researchers are wholly female. The majority of the males have either managerial or professional status, although two government bodies have a more diverse structure. The Scottish Council for Physical Recreation (now the Sports Council) has a field staff who inspect sports facilities throughout the country, while the Small Industries Council also has a technical field staff who inspect potential sites and industrial premises before assessing if financial aid will be forthcoming from the Council.

Methods of Communication Used

Most of the firms use phone or letter as their main method of communication with their clients. There are a few exceptions. Societies like the R.S.P.C.A. tend to have people coming to them for help, while others with library facilities also have members visiting their office. On the other hand, some of the Boys' Clubs and Scout Associations work mainly away from the office, organising orienteering expeditions and other field work exercises.

Face to Face Contact Patterns

Linkages are unimportant in the 'Association' sector (Tables 3.7 and 3.10). Most of these organisations are very self contained, their main contacts being with their members (Table 4.13). There is very little contact with other firms in the centre, and the linkage figures given in the above tables would be lower if the quasi-government bodies had been omitted, for example, the Scottish Council (Development and Industry) represents and is subsidised by firms throughout Scotland, and has a high membership in Edinburgh. As its headquarters is here also, contact with the business community in the city is strong. Overall face to face contact with other firms is not important and 'Associations', in general, do not have to be located in proximity to any other firm or organisation (in Table 3.11 this sector is well below average). Nevertheless, 69 per cent of the firms require to be in a central location. As client/member contact is very important, proximity to the main communication network (railway and bus stations) is essential for these firms so that their location is convenient for members.

Office Mobility

Half of the firms had moved in the last ten years. However, these moves were only small scale, within the central area, and of little significance. Most associations leased small office suites, so the main reasons for moving were lack of space or because they had been forced to move as the property owner required the premises for his own use. 9 out of the 26 (including 4 out of 5 quasi-government organisations) anticipate moving within the next five years. Once again, lack of space is the main factor for moving, but the larger associations (namely, the government bodies)

Table 4.13. Face to Face Contacts with the 'Association' Sector.

Clients	58.5
Banks	51.2
Central Government	43.3
Office Suppliers	40.8
Local Government	38.1
Legal Profession	36.7
Accountants	35.8
Competitors	35.4
Travel Agents	35.2
Associations	34.6
Other Professional	33.8
Business Services	32.7
Insurance	31.9
Advertising	30.6
Finance	25.0
Manufacturing	22.7
Construction	20.8
Property	15.2
Mean	34.6

also find car parking difficult and expansion plans in the past have led to their offices being dispersed throughout the centre of Edinburgh. Naturally, they wish to consolidate these offices under one roof.

Out of the 26 firms only 3 (2 Government) were dissatisfied with their present location. Of these, the General Teaching Council, located in Princes Street, wished to move further north into the New Town so that it could be relieved of car parking congestion. The other quasi-governmental body, the Scottish Council for Physical Recreation, is also dissatisfied about the present car parking facilities and indicated that it may move outside the central area altogether to either Morningside or Marchmont (south inner suburbs). The other association is moving because of lack of space but, significantly, it is moving away from a George Street address to the West End.

Other Firms Anticipating a Move

The six other firms who anticipate moving but are satisfied with their present location all wish to remain in the central area. The two quasi-governmental bodies wish to consolidate their scattered offices - the Small Industries Council is in the process of moving from two West End offices into one office about a 100 yards away. The other associations are growing out of their small offices and are looking for larger premises in the centre.

Another four firms may move in the future. Of these, two firms may move beyond the central area. One of the largest associations has already tried to obtain premises in the Colinton area, so if a reasonable offer is forthcoming, it would probably move. The Scottish Woodland Owners Association hinted that it would move close to the Forestry Commission's new headquarters, which is being established in Edinburgh, and as the Commission is coming to the Trinity area in 1973, it is extremely likely that S.W.O.A. would move there.

Although their linkages with other firms are weak, only a few associations are anticipating a move outside the central area. The linkage table (Table 4.13) shows that most contact is made with clients, 'Banks', 'Local Government' and 'Central Government'. Although these quasi-government bodies claim to be independent, they do have strong ties with the Central Government, while some private associations, like S.W.O.A. and the Scottish Landowners' Federation also have strong contacts with the Scottish Development Department and other government organisations. One of the key factors which allows the charitable organisations to stay in the centre is that they receive special rate reductions from the Local Authority, so the rate differential between central and suburban sites hardly comes into play when they make their locational decisions. So, along with the convenience that a central location has for its members, this factor also helps to explain why the status quo will be maintained.

Government Offices

The importance of government departments and organisations in terms of employment and the creation of a demand for office space in Edinburgh is outlined in other chapters. In order that a clearer picture can be given of the locational significance of government premises, this sector is divided up into four functional categories. Many government boards have set up their headquarters in Edinburgh. They are similar to the quasi-government organisations discussed in the 'Association' sector in that they operate independently similar to a private firm. Because of this, they represent what is known as the 'Government' sector in the sample. The Post Office, because of its size, is excluded from the list of government boards and shall be discussed separately. Local government (Midlothian County Council and Edinburgh Corporation) and central government departments (of both Scottish Office and U.K. regional headquarters) are also analysed.

Government Boards

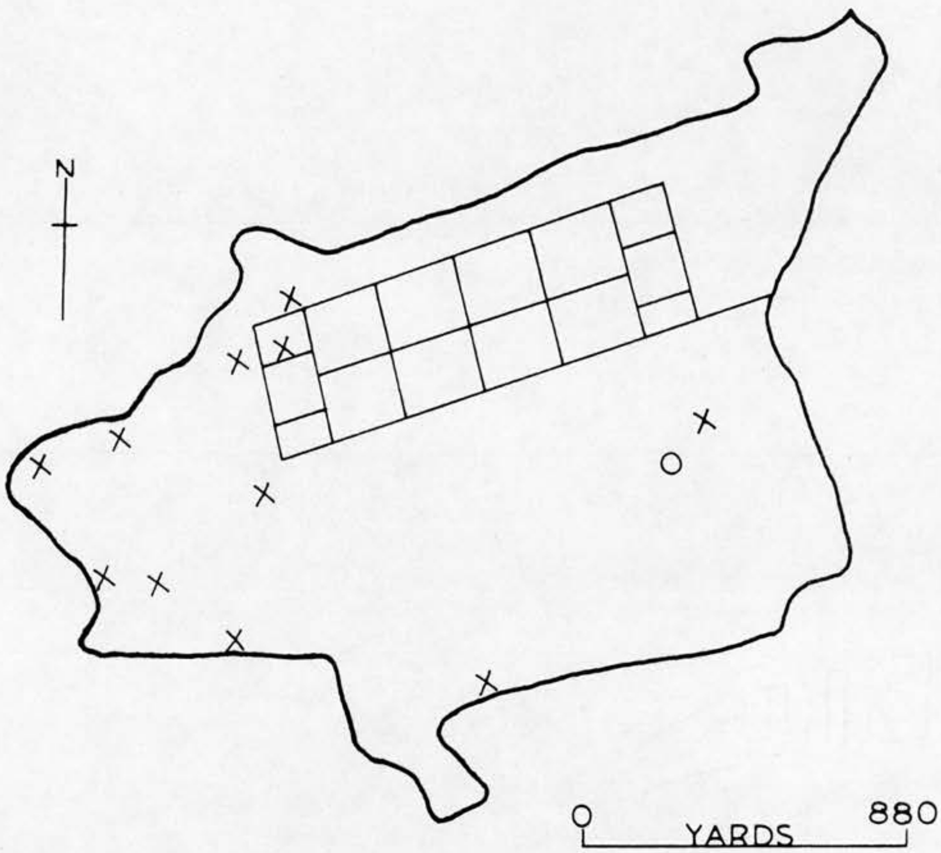
Originally the 'Government' sector was formulated on the principle that the office visited would be of manageable size so that locational decisions could be assimilated into the overall sample of 279. Of the twelve offices, eleven are government boards, the other, Midlothian County Council's head office. However, the latter will be discussed later in this section along with the offices of Edinburgh Corporation.

Location, Origin and Employment Structure

As can be seen from Figure 4.13, most of the offices are clustered in the West End in converted premises. Only the National Coal Board (N.C.B.) in the south is in a modern building (built in 1961). However, most of these activities originated in the immediate pre-war and post-war years with the considerable expansion of the public sector in the economic and social life of the country. From fairly modest beginnings these administrative bodies have grown so as to constitute a sector of the city's economy in their own right.

Although the Scottish Special Housing Association's (S.S.H.A.) main administrative office employs 172 people, in total the

Fig.4.13 Location of GOVERNMENT Offices



KEY

× Government Boards

O Midlothian County Council Head Office

association employs a staff of 540 in nine offices scattered throughout the West End. The South East Regional Hospital Board employs 292 in six offices, while the North of Scotland Hydro-Electric Board has a labour force of 315 in three offices (all offices are in the West End). In the other organisations staff totals vary from 431 in the N.C.B. to 13 in the Potato Marketing Board. The South of Scotland Electricity Board (S.S.E.B.) is the only branch office in the sample, but it has a staff of 164. In general, the ratio of male to female employment is 20:13. Over 60 per cent of the male labour force is professionally qualified. Most of these organisations have a host of departments, mainly administrative, employing lawyers, accountants, architects, surveyors and engineers.

Methods of Communication Used: Linkage Patterns

With the exception of the Potato Marketing Board whose employees work away from the office (at farms throughout the country) most of the other boards' business is done by either phone or letter. About half of the organisations interviewed thought a central location very convenient although not essential in terms of regularity of contact with the Government or any other body. These boards prefer to be in the centre because it is more accessible for visitors, it is easier to recruit staff and in some cases, central Edinburgh is the hub of the area which they administer.

However, this does not mean that face to face contact is not important. As can be seen from Tables 3.10 and 4.14, 'Government Boards' have strong contacts with the business community. Because of regular commuting to London to visit the United Kingdom headquarters of these organisations and other government departments, 'Travel Agents' have close ties with government boards. The professional sectors also rate highly in Table 4.14, probably because a large percentage of the staff of government boards are professionally qualified. Nevertheless, links with Central Government help to explain the location of these boards. In some cases, the greatest volume of their operations lies in the West of Scotland, or in the North, as with the Hydro-Board, but their Scottish headquarters have been located in Edinburgh because of their linkages with the centre of government. The only notable exceptions to the concentration of Government Boards in Edinburgh are the Scottish Milk Marketing Board, S.S.E.B. and the Scottish Region of British Rail which are located in Glasgow.

Some of these government boards have stronger contacts with the Central Government than others. The S.S.H.A. has regular personal contact with the Scottish Development Department (S.D.D.) while some branch of the organisation is involved in weekly meetings with government representatives concerning finance, planning or administrative questions. The Department of Agriculture and Fisheries has regular meetings with the Herring Industry Board and the White Fish Authority, while the Coal Board is also constantly in touch with government departments. The other boards, although their meetings with government officials may not be so frequent, thought it was important to be on the spot so that if an urgent or controversial matter arose they could make contact quickly and make crucial decisions on the same day.

In some ways some of these boards represent a form of office inertia. In the early years of their operation personal contacts would be more important with government departments than they are now, especially in the case of nationalised industries, where much statutory procedure was involved. In the case of the S.S.H.A. it grew up out of the actual working of government as it was the Scottish Special Areas Housing Association who worked in close conjunction with the 'Special Areas Commissioner' during the 1930's.

Table 4.14. Face to Face Contacts with 'Government Boards'.

Clients	55.0
Banks	49.1
Travel Agents	45.8
Central Government	45.4
Other Professional	41.3
Competitors	40.8
Local Government	39.6
Construction	37.5
Legal Profession	37.1
Manufacturing	37.1
Office Suppliers	37.1
Associations	35.0
Advertising	34.6
Insurance	31.7
Accountancy	31.7
Finance	27.9
Business Services	26.3
Property	17.1
Mean	37.2

Office Mobility

Although these boards have established themselves in Edinburgh, there has been a noticeable movement of these organisations within the city itself. Much of the decentralisation developments have been in the more routine statistical and accounting sections of these headquarters (the computer section of N.C.B. at Sighthill and S.S.E.B. accounts at Portobello). However, the Gas Board has been involved in the most significant move from the central area as yet. It centralised all of its departments into a new 120,000 square feet building at Granton bringing together 1,400 staff from scattered locations throughout Edinburgh. The Scottish Certificate of Examinations Board (S.C.E.B.), at present in the outer edge of the central area, intends to move to Dalkeith, just outside the city boundary, because of a lack of space. This trend could continue depending on whether the larger organisations can manage to satisfy their accommodation needs in the central area.

At the present time the North of Scotland Hydro-Board, the South East Scotland Hospital Board and the S.S.H.A. have their departments scattered throughout the West End. The N.C.B., in a similar situation ten years ago, had a modern office block built within the central area to consolidate its scattered offices. However, although the Hydro-Board is satisfied with its location (all its offices are in the same street), the other two boards have a more difficult problem. At first the Hospital Board, like the N.C.B., wished to construct a modern building at Myreside (southern suburbs). However, because of monetary problems, the scheme was abandoned temporarily and during this time property adjacent to its present premises came on to the market. Although negotiations have not been finalised, it appears that the Hospital Board, like the Hydro-Board, will eventually have its departments in converted premises in adjacent areas. The S.S.H.A. has a more acute problem. It has nine offices in central Edinburgh, some of which require more space. In recent years a decision was taken to move out of the city to a new building at Livingston new town. As yet nothing has happened mainly because of the outcry by staff at these proposals. Nevertheless, the accommodation problem is acute and action will have to be taken soon. It would appear that if the S.S.H.A. does not go to Livingston, it is possible it will relocate somewhere in the Western suburbs.

Two smaller organisations, the Scottish Tourist Board and the South East of Scotland Water Board, are also moving out of the central area. The Tourist Board will leave its information department in the central area, but the 70 administrative staff will move from cramped, inadequate premises (a converted church) to a new building at Ravelston. The Water Board also has poor office conditions in a severely congested traffic zone. As many of their staff need cars in their business, it has become increasingly difficult to park near the office. By 1973-74 the board will move into new premises as a new building is at present being constructed for its occupation at Fairmilehead (south outer suburbs).

A question mark hangs over the locational future of the Herring Industry and White Fish Authority Boards. It was thought that both organisations would move premises within five years, although their new location could not be predicted. This depends on the negotiations on Britain's entry to the Common Market. It is possible that these boards may be located nearer the continent, if not at Brussels itself.

An Edinburgh situation is very important to all of these boards, but a central location is more convenient rather than essential to most of them. The process of decentralisation is increasing to such an extent that organisations are not only considering a move to the edge of the city boundary, but beyond it to Livingston and Dalkeith. So long as key officials can attend meetings with government departments at short notice there is no reason why these organisations cannot locate, if not within Edinburgh, within reasonable proximity to the city boundary.

Local Government

The only exact employment figures which could be obtained were those for Midlothian County Council who employed a staff of 614 in their head office. By deduction, it can be assumed that Edinburgh Corporation employ in the region of 4,600 office workers (see local government figures in Table 2.3). The total number of people employed by the Corporation is 22,000, but this includes every employee ranging from dustmen to the town clerk. Official sources said it would be difficult to establish the exact number of people employed as office workers. However, 4,600 is a fairly realistic figure with all the major departments in locational proximity in the Market Street/High Street zone. Four departments alone employ around 1,700. The largest, the City Engineer's with 765 employees, the City Architect's and City Chamberlain's 400 each and the Town Clerk's 150.

<u>Location and Area Served</u>

The business of the burgh was conducted from the New Tolbooth in the Royal Mile until 1811 when the Royal Exchange was partly taken over. With the growth of the city, the volume of administrative business increased considerably. This resulted in the Corporation taking over other premises within the Royal Exchange until in 1930 the one remaining private resident moved out. However, the Corporation still required additional office accommodation and in 1932 extensions were added to the old Royal Exchange after the rebuilding of adjacent premises that were vacated by a publisher. By the 1950's this accommodation also became too cramped and inadequate so many departments were moved out to other premises. Some of these departments, and newly created departments, were located in properties in the High Street or in nearby streets, such as Market Street or Cockburn Street. Other departments have moved further out, but still remain within the central area, for example, the Transport Department is in Queen Street and the offices of the Lighting and Cleansing Departments are located at King's Stables Road, mid-way between the Grassmarket and Lothian Road.

Although the majority of the work in these local government offices is of an administrative nature, some departments, for example, the City Engineer's and Architect's have staff who, because of the nature of their work, are rarely in their departmental offices. In the case of the Post Office and the Scottish Office the centralising of scattered offices throughout the city has been condensed into a small number of large office blocks, both in central and suburban Edinburgh. Nearly all of the 5,200 local government workers are located in the vicinity of the Royal Mile. However, central government departments and the Post Office not only serve Edinburgh, but the whole of Scotland, so certain departments do not necessarily need a central site. Local government offices serve both Edinburgh and Midlothian County and in both cases central Edinburgh is central for the area they serve. Apart from being convenient for their staff a central site is ideal for the people of Edinburgh as well as for the day to day running of the offices. For complaints or inquiries a central site is more accessible for the Edinburgh people as a whole, while on the business side, inspections and work carried out throughout the city or county are best conducted from this central nodal point.

Midlothian County Council has some of its departments in one of the most recently built offices in central Edinburgh. The building, opened in 1970, provides 90,000 square feet of floor space with the provision of parking facilities for 40 cars. As early as 1955, the Council thought that it was desirable to centralise the departments accommodated in other parts of the city. As the Council had been in George IV Bridge since 1904 and wished to preserve the historical link with this part of Edinburgh, it acquired property in the Lawnmarket and Victoria Street to provide a site for these departments. However, by 1960 the increasing work involved in the rapid economic growth within the county (especially developments in the south and east) was apparent. This was accompanied by the need for an increase in the administrative and technical staff to deal with the developments foreshadowed by the New Town (Livingston) Designation Order and the task of providing services required for the substantial industrial and other development envisaged throughout the county. So, a greater area of office accommodation was subsequently planned than was at first proposed. It was decided to acquire the remainder of the properties on Melbourne Place between the Lawnmarket and Victoria Street, and this new building was constructed on this site linking the old with the new.

The Post Office

Composition and Growth

In recent years the Post Office has been divided into two functional components. The mail and parcel division now operates separately from the increasingly important telecommunications division which is responsible for the operation of services ranging from the telephone to the modern devices such as facsimile transmission, closed-circuit T.V. and confra vision. In the last five years the Post Office has increased its office staff from 1,800 to just under 2,900 in Edinburgh, and has been responsible for the construction of 235,000 square feet of office space in the city during this period. (Table 4.15.)

Location

Until 1972 the computer centre, employing a staff of 300, was the only section of the Post Office located outside the central area. Within the central area the Post Office employed 2,560 workers. However, on the construction of a new Telephone Manager's office at Gorgie Road in 1973 a further 679 employees will move from five scattered offices in the centre, so that over a third of the P.O. labour force will be in the suburbs.

Table 4.15. Post Office Staff in Edinburgh.

	Male	Female
Post Office Headquarters (Scotland)	270	130
P.O. Telecommunications (Scotland)	350	170
P.O. Computer Centre (Scotland)	60	240
Edinburgh Region		
Telecommunications:		
Telephone Manager's Office	399	280
Telephone Equipment Centre	43	
Telephone Exchanges		192
Postal:		
Administration	430	132
Delivery Offices	34	
Branch (Counter) Offices	70	60
Total	1,656	1,204

1,220 employees or 43 per cent of the total P.O. labour force in Edinburgh are in head office departments, but only the computer division operates in the suburbs. This department, with its large female labour force, does work, not only for the Post Office throughout Scotland, but for other organisations who care to use these facilities. Because the computer needs special conditions in order to function efficiently, a new building with the appropriate cabling and ventilating facilities is essential. The Post Office, like the Bank of Scotland, N.C.B. and the University, decided that a decentralised site would be more suitable than a central site if only for the availability of land for future expansion. However, the Scottish headquarters for both divisions are located in recently constructed buildings in the city centre (the latest completed in August 1972). A central area site is not absolutely essential for these P.O. headquarters, but they have always had difficulties in acquiring a suitable site in Edinburgh so they decided to lease rather than construct a building specifically for P.O. use. Property developers tend not to speculate in the suburbs by constructing buildings and then leasing them to prospective clients, so most leased property can only be found in the centre.

P.O. Headquarters (Scotland)

As with many organisations in Edinburgh, the Post Office has its departments scattered throughout the city. The new building for P.O. headquarters means that for the first time in 37 years all departments are under one roof which must indirectly improve postal facilities, to the benefit of all users of the service in Scotland. Three-tenths of the total labour force are employed in the Finance Department. Scotland has its own finance department distinct from the huge national central department at Chesterfield. Scotland's accounting is carried out in Edinburgh, mainly because of the distinctive currency system. The personnel, operational and planning divisions, plus a training school (presently at Corstorphine) will also be brought into West Port House.

P.O. Telecommunications (Edinburgh)

Although the Telephone Manager's administrative office for Edinburgh also consolidates scattered offices, this new office block was purpose-built for the P.O. and is outside the central area. This contrasts with P.O. headquarters which is in the centre of town. The two other categories which come under 'telecommunications' are the telephone equipment centres and the telephone exchanges. The six t.e.c. workshops are distributed evenly throughout Edinburgh, so that the engineers can service and maintain telecommunication facilities. Only one-tenth of their total staff are office staff - mainly inspectors. The exchanges vary in size with the three largest ones employing 233, 233 and 100, all being located in or close to the central area. However, most of the employees in these larger exchanges are engineers - one exchange is the auto manual centre - so each of these exchanges only have office staffs of 20 to 25 people.

Post Office Headquarters (Edinburgh)

The postal side of the business in Edinburgh is more tied in terms of location and it is unlikely that any changes will occur in the future. The administrative head office is central, being adjacent to the railway station, from where there is a special loading bay and conveyor belt to the office building. The seventeen delivery offices and the fifteen branch offices are located in central sites in each of the postal zones of Edinburgh. The parcel delivery offices have only one inspector and an assistant, while the branch offices have approximately seven staff per office, with the central area offices, including the counter office at the head office, employing more than this number.

However, the head office itself makes up for the lack of P.O. staff in these offices. 562 people are employed at Waterloo Place, of whom three-quarters are male and 84 per cent of the employees are in routine administrative jobs (see Table 4.16).

The process of centralisation has intensified to such an extent that 2,460 employees out of a total of 2,860 are in five buildings in Edinburgh. Most of the changes have taken place in either head office departments or in the telecommunications side of the P.O. Centralisation has led to a more efficient service, and although increases in staff can be foreseen, they will not be on the scale of those in the last five years when there was a 60 per cent increase in P.O. staff.

Table 4.16. Numbers Employed in Edinburgh's Head Post Office.

	Male	Female
Head Postmaster	1	
Manager of Philatelic Bureau	1	
Asst. Head Postmaster	3	
Superintendents	4	
Asst. Superintendents	14	1
Overseer	56	10
Postal and Telegraph Officers	313	105
Typists and Personal Secret/aries		16
Supervisors (Telegrams)	2	
Telegraphists	36	
Total	430	132

Central Government Departments

The Scottish Office

The Scottish office employs 4,608 people in Edinburgh in 708,000 square feet of office space. The breakdown of staff according to department is given in Table 4.17 below.

Table 4.17. Scottish Office Staff by Departments.

Agriculture and Fisheries	980
Home and Health	662
Central Services	1,371
Development	909
Education	527
Ministers	5
Messengers	154
Total	4,608

3,200 employees are housed in four office blocks (see Table 4.18). Two of these, St Andrew's House and Jeffrey House, are in the centre of town, while the two others are in the southern suburbs. Chesser House was built specifically for the Department of Agriculture and Fisheries in 1966, while Saughton has most of the more routine services of all departments, except Agriculture, for example, the electrical, mechanical and civil engineering sections of the S.D.D., teachers' superannuation in S.E.D. and the superannuation and prisons' division of the S.H.H.D.

The remaining 1,408 office staff are scattered throughout Edinburgh in 30 small to medium-sized offices. Some buildings are fairly new (Princes Street, Stock Exchange House) while some departments have occupied space in Department of Environment property (Argyle House, Lauriston House, Haymarket House) but, in general, most departments are housed in converted Georgian dwellings. 23 of these offices are in the centre, employing 1,113, with the seven suburban offices' staff of 295 all belonging to the one department - Agriculture and Fisheries.

Table 4.18. Scottish Office Staff by Location.

	Ag. & Fish.	SHHD	Cent. Services	SDD.	SED.	Minis-ters	Messen-gers
St. Andrew's House (Total 1,249)	89	205	561	236	97	5	56
Saughton (889)	-	202	418	120	115	-	34
Jeffrey Street (386)	-	-	64	309	-	-	13
Chesser House (676)	575	-	101	-	-	-	-
Total 3,200	664	407	1,144	665	212	5	103

Proposed Location of Departments

A radical re-organisation and further centralisation of these departments will be carried out during 1973/74. Just as Whitehall studied linkage patterns to determine which central government departments could be decentralised from London (Hardman 1973), the Scottish Office adopted similar research techniques to analyse the functioning of its departments. This has come about with the building of the St. James' Centre - a complex commercial development with 327,000 square feet of government offices, a large department store, a shopping precinct and a multi-storey car park.

A questionnaire was sent out to all employees on the volume and nature of contacts they had within and between departments. A linkage model was constructed and it was decided to centralise all major government personnel into six large office blocks (see Table 4.19).

Table 4.19. Proposed Scottish Office Employment and Locations.

	Oct. 1971	Oct. 1973
St. Andrew's House	1,249	1,150
Saughton	889	750
Chesser House	676	500
Jeffrey Street	386	400
Robb's Loan	-	425
St. James' Square	-	1,400
Total	3,200	4,625

This means that the Scottish Office will have increased its net office space by 206,000 square feet on the construction of Robb's Loan (90,000 square feet) and St. James' Square (327,000 square feet) and the relinquishing of 194,000 square feet of small scattered offices (25 out of 30 with only five in the suburbs, being retained). On comparing the figures for the office blocks between 1971 and 1973, it is clear that with the exception of Jeffrey House, there is going to be a pruning of staff in each of these office blocks. The new St. James' Square will accommodate most employees involved in essential Central Services with strong ministerial contacts. S.D.D. will move most of its staff from Jeffrey Street to this building while key personnel from all other departments will occupy small areas of space, so that they can keep the Minister alive to new developments, but be locationally close to attend meetings involving policy decisions. St. Andrew's House will accommodate most of the S.H.H.D. as well as small amounts of second tier personnel from other departments. The other central office block, Jeffrey House, will take most of the remaining S.E.D. employees with S.H.H.D. filling the remainder of the office. Chesser House will continue as before with the possible exception that more Central Service staff will be transferred to St. Andrew's House, and Saughton should also experience a similar pruning of Central Service staff. Robb's Loan, the only new suburban office, will accommodate staff from all departments (mainly S.H.H.D.) who have few business contacts, who are involved in routine work, and do not require a central location.

In 1971 2,748 government office staff were employed in the centre, 1,860 in the suburbs. When the St. James' Square complex is built, 2,950 people will work in the centre and 1,910 in the suburbs. So, out of a total increase of 260, 202 additional employees will work in the centre. However, this figure appears to be very small for an anticipated increase in staff over a two year period. This could result in either St. Andrew's House, Chesser or Saughton not thinning their staff to the anticipated level, or these small pockets of office accommodation will not be totally centralised.

Department of the Environment

It is more difficult to assess numbers of office staff for U.K. departments in Edinburgh because of the lack of available statistical information. However, the Department of the Environment's estate list does show the occupying departments, location and the occupied area of all buildings held in Edinburgh. The Department of the Environment is responsible for Scottish Office property, but as the Scottish Office has been discussed already, it was eliminated from the list as were army barracks, parks, ports and other non-office departments. Of the remainder, art galleries, museums, libraries and similar establishments are discussed separately as they have a large area per employee when compared to normal office buildings.

Numbers Employed in U.K. Departments

U.K. departments occupy 1,472,500 square feet of office space in Edinburgh. Of this, 666,800 square feet accommodate libraries and other institutions, while only 805,700 square feet are occupied by government departments. Whereas these figures are a close approximation, the estimated number of employees is not quite so accurate because of the sketchiness of the information obtained. However, it was assumed that the Department of the Environment employed a total of 4,237 office workers in Edinburgh, of whom only 334 worked in the institution category. These government departments are housed in 57 offices throughout the city.

Only seven of these offices are over 20,000 square feet in size, yet in total they represent 56 per cent of the total labour force in Edinburgh (Argyle House itself employs 25 per cent of the total staff).

Location of Departments

Unlike the Scottish Office where 40 per cent of its employees are in suburban sites, only 23 per cent of the U.K. departments are outside the central area. Of these, about one-third is employed by the Inland Revenue while there is an assortment of departments at Sighthill in the outer south-west suburbs. Most of the other suburban offices are either Department of Employment regional offices or Customs and Excise and Marine Survey departments located within the vicinity of Leith. One exception to this is the census office at Ladywell House in Corstorphine. Naturally, this 16,000 square feet building houses a varying number of employees depending on the stage of analysis of the census data.

The main reason for this concentration of staff and departments in the centre of town is that the Treasury's financial stringency has forced the Department to lease and not buy its own property. Whereas Glasgow has a number of schemes, the only Crown building of note in Edinburgh is the recently built

St. James' Square complex for the Scottish Office. Because the Department depends on a developer for office accommodation, most of the property available on the market at the scale the Government requires is in the centre of town where the demand for office space is greatest. From past experience, the Department of the Environment has had difficulty in recruiting younger staff in the suburbs, for example, the Inland Revenue's difficulties at Dreghorn army camp at Colinton. So, in June 1969 the Department's fragmented offices were brought together to facilitate policy making, strengthen linkages between departments, and to ease staff accessibility. The new building constructed for these purposes was Argyle House at Lady Lawson Street, while Stuart House, the headquarters for the Department of Employment was built adjacent to this office block.

Although consolidation of scattered offices has taken place, there are still 41 government offices in central Edinburgh occupying 604,600 square feet. As six offices account for about 370,000 square feet of this, 35 offices in the centre have a total of 235,000 square feet of office space. This is an average of 6 to 7,000 square feet per office so it appears as though further consolidation of these small scale offices could still be a policy for the future.

The Remainder of the Government's Estate

Although museums and libraries are not labour intensive, they require a great deal of floor space, for present work and future accessions. Already the Royal Scottish Museum and the National Library have applied to the Department of the Environment for more accommodation space. The Government suggests decentralisation, with the possibility of a move to Livingston new town, while the bodies concerned do not wish to move out of the central area. The National Library has strong ties with the University, but Heriot Watt is moving out to Riccarton, seven miles west of the city centre. Nevertheless, libraries, museums and art galleries are not only for the people and students of Edinburgh. They have a national, and even international attraction to scholars and research workers. Therefore, it is more convenient for everyone concerned if these facilities are located near to the bus or railway station, so that they can be accessible to their users.

If the present trends are maintained, so that much of the professional and insurance offices move out of the central area and the Department of the Environment consolidates its position in the centre, it is possible that the centre of Edinburgh will be dominated ~~with~~ by government buildings in the next five to ten years.

Banking

Of the three major Scottish banks the Bank of Scotland and the Royal Bank of Scotland have their head offices in Edinburgh. Although these banks are the most important in terms of employment and floor space in the city, there are several merchant banks, finance houses, overseas banks and savings banks in the capital. The finance houses, although in some cases performing merchant bank functions, were analysed earlier under the 'Finance' sector.

Numbers Employed

It is difficult to assess the total number of people who are employed in banking within Edinburgh because the S.I.C. only gives a figure for Banking, Insurance and Finance. Indeed, of the total number of employees involved in banking, only that proportion which is engaged in head office work comes within our range of interest. Branch offices are located throughout the city, so that they can provide a service to the general public. Although there are more of these offices in the centre because they serve the business community, office and shop employees and the tourist, most branch offices in the suburbs tend to cluster at secondary shopping centres and other nodes of development where accessibility is easier for the public. At the present time many of these smaller offices in the centre are closing down as the banks rationalise their staff into fewer, larger buildings.

The Location of Head Office Departments

The Bank of Scotland has a head office staff of 1,008, the Royal Bank 900. The latter has all of its departments, with the exception of the Stationery Department, in the centre of Edinburgh. The Bank of Scotland, on the other hand, constructed a new building a few years ago at Robertson Avenue, Gorgie and the Computer and Debit Clearing departments were decentralised to this site, taking with them a staff of 344 (110 in the Clearing Department).

The Bank of Scotland has always had more acute office accommodation problems than that of the Royal because of the scattered distribution of its offices. When the Royal and National Commercial Banks merged in April 1969, all the head office properties of both banks were within a 50 yard radius of each other. The old National Commercial head office in George Street was taken over by the Trustee and Investment Department, and the other departments were housed in 36 and 42 St. Andrew Square and a new building adjacent to 42, at West Register Street.

The Bank of Scotland, on its merger with the British Linen Bank in February 1971, was not so lucky in the distribution of its newly acquired property. The British Linen's main office was at 38 St. Andrew Square, but other departments were scattered along George Street. The Bank has acquired property in Bank Street in an attempt to consolidate departments and keep them within locational proximity to the Mound building itself. However, when it was decided that the premises in George Street were not modern enough for the conditions required for the computer section, a new building was constructed at Gorgie and the Debit Clearing Department was also decentralised. The Royal also had problems with its expanding Computer Department, but unlike its competitor the space was available in a site it already occupied. Although the Computer Department does not have to be located centrally and would be cheaper to maintain (in terms of rates) outside the centre, the Royal decided to build at the back of 36 St. Andrew Square because the land belonged to them and all the other departments were adjacent to each other.

The Role of Head Office Departments within the City

A cross section of personnel from head office departments were interviewed in order to achieve a better understanding of the administrative functioning of these banks. Head office functions have expanded considerably over the last ten to fifteen years, with the influx of a multitude of new departments to add to the well established finance departments, such as the Cashier's, Accountant's, Trustee and Investment and Legal departments. Developing and Marketing, Organisation and Methods, Property, Registrar, Public Relations, Staff, Insurance and Computer are departments which have been created since the late 1950's. Some of these were newly created departments to cater for an increased range of business. The Law Department, for instance, previously carried out the work now undertaken by the Property Department.

It is some of these new departments which have provided the banks with their accommodation problems. Most of them have grown steadily in size, employing between 15 and 50 employees, but two departments, the Registrar and the Computer Departments have had notable increases in staff. From small beginnings in the early 1960's when both banks employed a staff of about 50 in each of their Computer departments, they now employ a total of 384 and envisage a considerable increase in the next five years.

The Registrar Department is important in that it provides a revenue for the bank as it offers a service for the business community. Many clerical staff are required and since the Royal opened this department in 1964 it has increased its staff from 19 to 78, and anticipates employing a further 60 in the next five years.

Overall, most departments are fairly self contained, but some are locationally more flexible than others. The administrative core (cashier, accountancy and legal departments) needs a central site and although the manager of the Trustee and Investment Dpeartment thought that his department could operate more efficiently in the suburbs, it is highly unlikely that this will ever happen. Of the new departments, Organisation and Methods, Developing and Marketing and Public Relations can, and often do work away from Edinburgh; the manager of the P.R. Department stating that Glasgow would be a better centre in which to be located because of the importance of commerce and the newspaper industry in the city. Nevertheless, these departments are tied to the Executive in some way so the splintering of separate divisions is unlikely. The Staff

Department must be in the centre of town because it is more convenient for interviewees to find the office if it is close to the bus and railway station.

If the managers of these bank departments were interviewed as separate entities, over half of them would not consider a central location essential. However, as they are departments of the one company, it is much easier for the Executive to administer them if they are located close together. It is convenient for the competing banks to be near each other if only that it makes the exchanging of notes more practical. Although the Royal has sufficient space in St. Andrew Square and can cater for further expansion (by closing one of the branch offices on the ground floor), the Stationery Department was decentralised to a converted warehouse at MacDonald Road (off Leith Walk) three years ago, and another space consuming department, the Registrar, will be moved out within the next few years. The Bank of Scotland with a third of its head office staff decentralised already could consolidate its scattered offices by centralising staff into the two main offices in the centre - the Mound and 38 St. Andrew Square, and building an extension at Robertson Avenue for departments who do not need a central location.

<u>Other Banking Organisations</u>

The Clydesdale Bank has its head office in Glasgow, but has chief offices in all of the major cities in Scotland, including Edinburgh. These offices are only large branch offices which, to a certain extent, administer other branches in their area.

The Trustee Savings Banks are unlike the joint stock banks in that they are not profit making concerns, but are controlled by trustees. The joint stock banks are limited companies open to shareholders on the Stock Exchange, whereas any profits the trustee banks make are invested in the National Debt Office. The trustees of all these banks throughout the country have an association which formulates nationwide policy. However, different districts have different trustees and each area operates independently. The head office of Edinburgh Trustee Saving Banks is in the centre of town, while all of the branch offices are located throughout Edinburgh at points of maximum accessibility for clients in much the same way as joint stock banks' branch offices. A central location is very important to the Savings Bank because it serves other firms in the centre and until recently it did have an advantage over other banks in that it was the only bank open at lunchtime for the convenience of office and shop workers.

All of the other banking concerns in Edinburgh are fairly insignificant, only employing small numbers of staff. The Bank of Nova Scotia opened a branch in Princes Street in 1969. The company chose Princes Street because it is the main tourist area in the city. Being new, the Bank wanted publicity and so it has stronger contacts than would have been expected from most branch offices because personnel have been going to the business community offering them the firm's banking services. Staff were recruited by the policy of offering higher salaries than those offered by already established houses.

Both the merchant banks visited have only been recently established in Edinburgh (1969 and 1971). Even the finance companies that perform merchant bank functions are recent arrivals to the capital. Unlike the joint stock banks, the merchant banks do not provide a service to the private individual, but to commercial companies. Much of their work is of an advisory nature providing assistance to firms intending to merge or going into liquidation. Staff are specialists in their field, and those banks usually hand pick the cream of the profession from the joint stock banks.

Summary

By analysing the role each functional group plays in the city centre, important differences exist between offices in the same functional group. In the 'Finance' sector, investment trusts have weak face to face contact patterns with most of their business being conducted by telecommunications, whereas building societies, serving the local market, have strong linkages with the Edinburgh business community. The role of the insurance company in the city centre varies according to the type of firm. The life insurance firms are more footloose, as many are head offices who are concerned more with routine administrative duties than with the generation of new business. General and composite insurance firms have more contact with clients and the general public, consequently they are more reluctant to move than life insurance companies. The property companies' location and future mobility depend on the size of the firm. The larger firms perform a variety of functions both in the commercial and residential property business. They require prestige premises, especially for their residential departments. The uni-functional firm is moving away from the core of the central area to lower rated premises on the outer edges of the city centre. The travel agents are similar - the large multi-purpose firms are located along Princes Street, the small package tour firms operate in other main tourist or shopping areas. The professional sectors do not vary much within each group. However, the 'Manufacturing', 'Association' and 'Business Service' sectors cover a wide faction of differing functions, for example, 'Associations' comprise voluntary associations and trade associations, councils, societies and clubs - all of which have their own individual interests. The main thread of uniformity that these three sectors share is that they are small and play an insignificant role in the business structure of the city centre.

Although office mobility is significant in most functional groups, the distances firms anticipate moving are short and mainly within the central area. Smaller offices, especially in the 'Construction' or 'Other Professional' category, are more willing to move further away from the central office zone. However, although the forces of centralisation are strong, the physical constraints imposed on large firms within the city centre have acted as a counter force in promoting decentralisation. Two insurance companies are moving to the 'Inner Suburbs' zone. One other life insurance company, the largest, is moving to the suburbs or possibly out of Edinburgh to the Lothians, while the headquarters of a building contractor anticipates a move to the outer northern suburbs.

The Government has provided the main stimulus to suburban office development in Edinburgh. 40 per cent of the Scottish Office's 4,608 employees work outside the central area. However, only 975, about 23 per cent of the Department of the Environment's employees, work in the suburbs. The Department leases its property so most of its buildings have been constructed in areas of market demand - usually within the central area. Up until 1973, the Post Office only employed 12 per cent of its Edinburgh labour force in the suburbs. However, on the completion of the Telephone Manager's new office at Gorgie about 35 per cent of the P.O. staff will operate outside the central area. Further decentralisation of central and quasi-governmental organisations is unlikely. It is possible that the Department of the Environment's estate may be centralised into fewer buildings within the central area. The reorganisation of Scottish Office staff, on completion in 1974, will reduce the numbers of staff in the suburbs from 40 to 39 per cent of the total employed. Of the government boards located in the centre only two, the Tourist Board and the Water Board, are moving out of the central area with the former only moving to Ravelston on the north-west periphery of the city centre. Although lack of space and the need to consolidate scattered offices may force some boards, especially the Scottish Special Housing Association, out of the centre, they are reluctant to follow the example of the Gas Board by moving their whole organisation out to a suburban site.

CHAPTER 5

Suburban Locations and Present Market Trends

Post-War Office Development

Since 1945, 3.9 million square feet of office space have been constructed in Edinburgh, of which 2.3 million are in the central area, and 1.6 million are in the suburbs (Table 5.1). Initially, most developments were confined to the central area, but in the 1960's and early seventies office construction in the suburbs has kept pace with that in the centre, for example, 1.45 million square feet have been built from 1968 to 1972, of which 750,000 square feet have been constructed in the suburbs and 700,000 square feet in the central area. However, the pattern of demand for office space has changed markedly over these four years. In 1968, the Government accounted for 44 per cent of the total post-war demand, Public Boards 21 per cent, financial 24 per cent, other 4 per cent, with 7 per cent vacant at the time of writing. (Freeman 1970.) In 1972 the figures for 'Government' and 'Public Boards' remained unchanged, but the firms in 'Finance', 'Banks' and 'Insurance' together only have 18 per cent of the total, while other users - general business, professional and multiple use occupy 12 per cent of the post-war office blocks. Although the financial category has increased from 588,000 to 691,000 square feet (18 per cent) in four years, in relative terms its share of the total has decreased considerably. For example, the 'Government' and 'Public Board' sectors have increased by 63 per cent and so continue to have a high share of the total, whereas 'other users' have increased by 350 per cent from 103,000 to 457,000 square feet. In this category come the professional classes, mainly architects, who have converted premises in the suburbs, the accountants, who have renovated property in the central area. General business offices, including construction companies and manufacturing regional sales offices, have also been active in the building of new office blocks in the suburbs (170,000 out of 190,000 square feet outside the central area). Only two of these offices, one of 10,000 square feet, the other of 5,000 square feet, are in converted premises, others have been built specifically for their own use.

The financial sector varies according to function. Because of lack of space, the banks have built more in the suburbs than in the centre, a finance company has moved its headquarters to a new 90,000 square feet building on the outer edge of the central area, but the insurance companies have constructed all of their 461,000 square feet of office space in the central area. Nevertheless, this position should change within the next few years when three of the largest insurance companies move into the suburbs. In total,

Table 5.1. Post-war Office Building (Thousands Square Feet) April 1972.

		In the C/A	In Suburbia
Banks	140	40	100
Government	1,694	1,062	632
Insurance Companies	461	461	-
Professional	112	62	50
General Business	190	20	170
Public Boards (Inc. P.O.)	821	453	368
Mixed Office Suites	155	155	-
Finance	90	-	90
Others (Not Leased Yet)	226	46	180
Total	3,889	2,299	1,590

Source: Town Planning Department Records and Fieldwork.

future suburban office building in insurance should equal what has been built already in the centre, but these firms leaving the central area will leave behind large amounts of vacant office space which have been built in the post-war period (about 160,000 square feet).

The 'Government' sector is still by far the most prominent in its demand for office space in Edinburgh. Over 500,000 square feet have been built for government use in the last four years, while 300,000 square feet have been constructed for 'Public Boards' (including the P.O.) in the same period. Although 60 per cent of the government and public board's offices are in the centre, the suburban total for both these sectors equals over 60 per cent of the 1.6 million square feet built in suburban Edinburgh since the war.

The Demand for Office Space

It would appear from the planning applications from 1965 to 1970 that the future employment distribution of office jobs would be equally split between the central area and the rest of the city. (Table 5.2.) More recent information has amended these figures, so that 1.85 million square feet have been demanded in the central area with 1.9 million square feet in the suburbs from 1965 to April 1972 (Table 5.3). Both these figures are almost sufficient to accommodate the whole of the office employment growth predicted up to 1991 in the Buchanan Report (1972).

Table 5.2. Planning Applications 1965 to 1970.

	C/A	Suburbs
Total floorspace subject to applications	1.8m.	1.7m.
Applications granted	1.5m.	1.3m.
Buildings constructed or under construction	0.9m.	0.3m.

Table 5.3. Planning Applications 1965 to 1972 (April).

	C/A	Suburbs
Total floorspace subject to applications	1.85m.	1.9m.
Applications granted	1.7m.	1.7m.
Buildings constructed or under construction	1.2m.	1.03m.

As in the 'Insurance' sector earlier, many firms ask for planning permission entailing a move from one office to another which may not have a significantly larger floor area. So planning applications can only be used as a rough guide to current market demand and not to any precise categorisation of office type throughout the city. For example, although by 1970 in the central area 1.8 million square feet were demanded through planning applications, only 1.5 million square feet were granted, of which 0.9 million square feet have been built or were in the process of being constructed. The suburban total showed a greater discrepancy - of the 1.7 million square feet demanded, 1.3 million were granted and only 300,000 square feet were under construction. So, it is clear that there is a long time lag between the firm's searching for a site, its application for planning permission, the Corporation's consideration of the application and finally the construction of the building. Meanwhile, the office which is about to be vacated has to be sold or re-leased, depending on the circumstances, so this factor helps to add to the complexity of the final equation.

Earlier in the chapter, the amount of post-war office building, the functional groups occupying these premises and the distribution of these offices throughout the city were all analysed for April 1972. All buildings occupied at this date were reviewed and trends traced by comparing figures at an earlier date. However, the analysis of planning applications moves away from this static technique and provides a more dynamic method of studying present trends in the office market.

In eighteen months another 50,000 square feet have been demanded in the central area, while an additional 200,000 square feet of office space are planned for the rest of the city (Table 5.3). More applications have been accepted - 200,000 square feet in the centre, 400,000 square feet in the suburbs, but the most striking statistic in Table 5.3 is the increase in area of new buildings. In 1970 only 0.9 million square feet had been built in the central area and considerably less - 0.3 million square feet had been constructed in the suburbs, but in the last year and a half just over 1 million square feet have been built or are in the process of being constructed. 750,000 square feet of this have been built in the suburbs, a trend already noticed in Chapter two.

The Changing Pattern of Land Use in the Central Area.

Material was also available from the list of planning applications on the previous use of premises which were going to be converted into offices. Although this material was restricted to the central area, it provided further information on the character of the study area.

The greatest demand is for small scale offices with a third of the applications wishing to convert residential property. (Table 5.4.) These 21 applications only require 3 per cent of the total floor space demanded, the average size of office being under 3,000 square feet. Applications for large scale office developments are mainly for areas of waste ground or derelict land, redevelopment zones where run-down properties of mixed use are to make way for office edifices, or the renovation of office establishments themselves. However, only 68 per cent of the total area demanded is in the central area of the study area, the 'Inner Suburbs' accounting for the remaining applications.

The 'Inner Suburbs' Zone

The number and character of applications for this peripheral zone typifies what would be expected in the 'transitional' zone of a city. Even within the study area, most of the residential premises that are being converted to office use are found on the edge of the central area and this continuing expansion of the commercial central area in the 'Inner Suburbs' is what would be expected in a city with a large and growing professional labour force.

The areas of derelict, waste land are divided fairly evenly between the central area and the 'Inner Suburbs' zone with firms making six applications and demanding over 250,000 square feet

Table 5.4. Previous Use of Areas Required in Planning Applications.

(Central Area)

Type of Use	Area (sq.ft.)	No. of Applications
Residential	57,350	21
Shops	6,400	2
Industrial	265,000	4
Commercial/Office	250,000	11
Office/Shops	5,218	1
Mixed	502,699	7
No Previous Use	536,020	12
Warehouse	30,000	1
Others (clubs/halls/cinema)	102,700	3
Total	1,755,975	62

Of this total 1,200,375 sq. ft. was demanded in the central area of the study area.

Type of Use	Area (sq.ft)	No. of Applications
Residential	40,470	15
Shops	6,400	2
Industrial	7,800	1
Commercial/Office	5,218	1
Office/Shops	250,588	11
Mixed	502,699	7
No previous use	284,500	6
Others	102,700	3
Total	1,200,375	46

Table 5.4. Cont .....

556,600 sq. ft. was demanded on the periphery of the study area's central area, but within the T.P. Department's central area (the 'Inner Suburbs' zone).

Type of Use		Area (sq.ft.)	No. of Applications
No previous use		251,520	6
Warehouse		30,000	1
Residential		16,880	6
Industrial		257,200	3
	Total	555,600	16

for each area. Most of the land zoned under industrial use has been applied for in this peripheral area while none of the area demanded in this zone will be converted from commercial use. This implies that firms are establishing a first phase of commercial developments in the transitional zone taking over industrial and residential property, or even waste ground. However, moves are of a short distance nature with companies being very reluctant to move outside the centre altogether. The effect is thus to create an enlarged Central Business District (C.B.D.). It is possible that planning or parking controls have been the main instigators promoting office mobility from the core of the central area.

The Secondary Study - Research Methodology

In order to understand office mobility in the central area and from the central area to the suburbs, a secondary study was conducted to augment the information received from the questionnaire. Four methods were adopted in assembling the necessary information. All sites which have been redeveloped within the study area in the last ten years were plotted. Firms who were in these sites prior to redevelopment were traced to see if they remained in close proximity to their former location or if they moved further afield. (Street directories from 1960 onwards were used for this purpose.) The occupants of the new office blocks constructed in their place were traced to find if they came from within the central area, the suburbs or outside the city itself. Estate agents were asked what property they had on the market, who was previously in these premises and who was going to move in to the vacated property. Further assembling of material was the result of fieldwork within the study area. Clues to where firms had moved were usually given by the company concerned leaving a forwarding address for clients. Empty property was also noted and the whereabouts of the former occupants traced through the street directories.

After a gap of eighteen months the property market was reviewed and all properties vacant in December 1970 were checked to find out if anyone had acquired these premises by June 1972.

Number of Moves

As can be seen from Table 5.5, firms in the 'Finance', 'Insurance', 'Legal', 'Other Professional' and the 'Manufacturing' sectors show the greatest number of total moves in the survey. However, non-office moves total 107 which is similar to the number of office moves (119) considering that one section - c, is devoted to offices only. The changing pattern and distribution of shops, restaurants, cafes, clubs and hotels within the central area would make a worthwhile study in itself.

Mobility Because of Redevelopment

Sections a, b, c and d in Table 5.5 refer to the mobility caused and created by redevelopment plans within the central area. When the City Planning Department earmark a site for future redevelopment, the firms occupying this area know that they will not be able to afford the high rents and rates of the new building which will replace theirs. Nevertheless, all but one of the

Table 5.5.	Non-Office	Fin	Ins	Prop	Acc	Leg	Op	Mfy	Con	Ta	Bus Serv	Adv	Ass	Gov	Bks	Total of Office Moves
a) Firms who moved because of redevelopment plans but remained in the C/A	13	1	3	1	2	1	-	-	-	-	2	2	2	2	-	16
b) Firms who moved because of redevelopment but decentralised	15	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1
c) Firms moving into new office blocks from C/A	-	3	3	-	1	-	-	1	-	-	-	-	-	-	1	9
d) Firms moving into new property developments from outside C/A	3	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
e) Firms who were in property prior to it being sold by the estate agents	32	4	3	2	1	4	5*	5	4	2	1	1	2	1*	-	35
f) Firms who moved into the property sold by estate agents	22	3 /2	3	2	-	3 /2	5 /5	2 /2	- /4	-	3 /1	- /1	1 /1	2 /1	1	25
g) Firms moving out of C/A (field work)	9	-	1	-	1	1	1	3	2	-	1	1	-	-	-	11
h) Firms moving within C/A (field work)	3	1	2	1	1	2	-	1	-	-	1	-	-	-	-	9
i) Firms taking over their premises (field work)	1	-	1	-	-	-	-	1	-	-	1	-	-	-	-	3
j) Empty property - all previous tenants moved within the C/A	2	1	-	-	-	2	-	1	-	-	-	-	-	-	-	4
k) Who have moved into these and other vacated premises	7	1	-	-	2	-	-	-	-	-	-	-	-	2	-	5
	107	14	16	6	8	13	12	14	6	2	9	4	5	7	3	119

*One of which decentralised

offices - a firm of consulting engineers - remained in the centre. More shops and other non-office functions were affected by redevelopment (28 as compared to 17 offices) and many of the smaller businesses were more willing to decentralise than the offices (15 out of 28 moving out of the central area).

Financial firms were prominent in the acquisition of new office blocks in the central area. Three insurance companies, a merchant bank, a stockbroker and two investment companies moved into redeveloped sites from within the central area. One accountancy firm moved from St. Andrew Square to a house which it rebuilt on the periphery of the central area, while a computer firm requiring prestige premises moved into a new building in the St. Andrew Square area. Mobility was less pronounced from outside the central area to new property developments in the centre. Only one office, an overseas bank, moved into new premises from outside Edinburgh's central area. Activity in non-office functions was more important with three shops coming to Edinburgh from other parts of the country.

Estate Agent Data

The information received from the estate agents gave a more comprehensive cross section of the type of firmmoving voluntarily.

As unsold property in December 1970 was rechecked in June 1972, the changing patterns of commercial land use within the central area could also be analysed from the data in rows e and f.

Out of the 35 firms who vacated their premises only two firms decentralised - a surveyor's who moved to Gorgie, only a mile from the centre, and a Gas Board department which moved out to Granton on the centralising of all the Board's departments, but only 23 firms remained in the central area. Although five 'Manufacturing' offices moved, three gave up their central area office; the firms contracting and working from their yards or warehouses in suburban Edinburgh. One sales office moved from the West End to the southern periphery of the 'Inner Suburbs' while the other 'Manufacturing' office could not be traced. Also coming into this category was an accountant, a travel agency, a finance company, a construction firm and a 'Business Service' office. (The C.A. may have amalgamated so the change of name of the firm may have made it impossible to trace). The other firms either closed their Edinburgh office or they had gone out of business. This was the case with a stockbroker and a construction firm, both going into liquidation, while the travel agency closed down its Edinburgh branch.

Firms Acquiring Central Area Premises

The firms who moved into these vacated premises were similar functionally from those who had just moved out, with firms in the 'Finance', 'Insurance', 'Legal' and 'Other Professional' sectors showing most mobility. However, only two 'Manufacturing' offices and not one 'Construction' firm replaced the nine offices that had moved, contracted or gone out of business. On the other hand, firms in the 'Business Services' sector consolidated their position in the central area with more firms moving into these premises than were moving out. Of the 67 properties being sold by estate agents, 32 were shops and other non-office functions and 35 were offices. Only 47, 25 offices and 22 others, had been taken over after a period of eighteen months. Twenty properties are still for sale (in 1972) of which only two out of thirteen offices are being renovated, while only one out of the seven non-offices looks as though it could be occupied in the near future. The main reason why these premises remain unsold is that the properties are poor, they require renovation and the prices demanded for them are too high. It would be untrue to say that there is a lack of office space in the centre of town, but a firm is not going to buy property which is extravagantly priced because of its location alone. Some firms in the questionnaire said that they would not move from the centre because their property was their own and not leased and they were doubtful if they could sell their property on moving.

Changing Land Use Patterns

The 47 properties which had been acquired during the study period were used as a basis for analysing the changing patterns of land use in the central area. Out of the 25 properties which were offices on the completion of the study, nineteen were offices before (these are shown in column f in the brackets adjacent to the present use). The estate agent could not determine the former use of one of the properties, four offices were previously shops and a surveying firm took over the premises originally occupied by a private college giving tuition in 'O' and 'H' levels. Two insurance companies, a building society and the Solicitor's Property Centre (an office which exhibits all properties that the legal profession has on the market) are the four offices who converted shops for their own use. All of these firms have similar characteristics in that they have a window display, a counter service and a spacious frontage with pamphlets littered at tables providing the necessary information on insurance policies, available properties and types of building society loans. It was therefore very straightforward and reasonably economical to renovate shopping premises to this type of use.

As only one of the 22 non-offices has taken over premises previously occupied by an office, the ratio of office to non-office property in the survey has increased from 35:32 to 38:29. Apart from this office, fourteen shops, two warehouses, three restaurants, one garage and an area of residential property were converted for non-office use on being sold by the estate agent. The garage and one warehouse did not change use on change of owner. However, although only one shop changed use (from residential property), the character of shop types has undergone many changes. A few years ago the property vacated was previously inhabited by a wide range of shop types varying from departmental stores to the small back-street shop. The small businesses are disappearing from the centre, especially in the area of Rose Street where they have been replaced by new shopping precincts. Boutiques have taken over much of these premises in and around Rose Street and in other streets adjacent to the main shopping areas. The bookmaker has appeared regularly as an intruder to the C.B.D. where there is a high incidence of public houses. A warehouse was converted to a hotel in the New Town, a restaurant was renovated for public house purposes near the University and a gaming club was established on the former site of a restaurant in the centre of town. Although restaurants were making way for other uses, they were actively establishing themselves in other parts of the city centre - one taking over the only office property converted in the survey - a travel agency, with two others renovating shopping premises.

Field Work Data

Sections g, h and i were formulated on material collected by fieldwork. As the whole of the study area was covered, any relevant information was noted, for example, vacated premises often had a note pinned to their door stating the new address of the firm. More firms, in both the office and non-office categories, moved out of the central area than stayed within it, yet in some cases the same type of firm (by sector) was moving within the centre as well as between the centre and the suburbs.

The insurance company which is moving out of the central area is having a new building constructed less than half a mile from its old office and within the 'Inner Suburbs' zone. Two of the 'Manufacturing' firms are also moving only a short distance, one to Roseburn just outside the 'Inner Suburbs', the other to within this zone. The legal firm, on moving to Bruntsfield, set a precedent as this is considered a far reaching move in solicitors' terms. Nevertheless, in terms of physical distance the firm still remains within the 'Inner Suburbs'. Of the remaining seven companies, an office in each of the 'Business Service', 'Construction' and 'Advertising' sectors, closed their offices in the centre and did not relocate in other parts of Edinburgh but contracted to Glasgow. Only four firms showed long distance mobility. Of these, an accountant and his major client, a design engineer firm, decided jointly to move from the centre to a new building on the Pentland Industrial Estate at Loanhead. An architectural firm took over and converted agricultural buildings at South Queensferry and a 'Manufacturing' firm centralised its sales and regional office in a new building on the Newhaven Road in the outer eastern suburbs.

Overall, from this data, it can be said that an equal number of firms are staying in the centre compared with those who are moving to the suburbs, but of the firms moving to the suburbs half are remaining in close proximity to the central area.

Firms Acquiring Vacated Premises.

Four firms - one shop and three offices - moved into those premises vacated by the aforementioned firms (column i). Although several of these properties are poor quality, the main reason why these premises have not been taken over is that most firms have only recently moved out of these offices (the data were collected throughout 1971-72 while interviewing and making general observations). Because of this, the property has only been on the market for a short time so it is not surprising that most premises are still vacant.

'Empty' Property

The studying of 'empty' property (columns j and k) is an extension of the material collected for sections g, h and i. From fieldwork notes all property that was unoccupied - not quite the same as the above where firms stated where they were going - was checked through the street directories to find the previous occupants and their destinations. As much of this property was in a state of decay in areas of blight, not many firms could be traced in the last ten years. Only two shops and four offices, all of which remained within the central area, were recorded in the street directory. However, renovation has taken place, especially in areas of historic or architectural interest, so that many firms have moved into what were previously run-down properties. Restaurants, public houses and souvenir shops have taken over many of these properties although offices, mainly the Department of Employment, have also been active in the city centre.

In conclusion, it can be said that present market trends show that most firms are content to stay in the central area. In columns a, b, e, g, h, and j there was a total of 75 moves of which 51 (68 per cent) remained in the centre, 3 (4 per cent) moved to the 'Inner Suburbs' and 8 (11 per cent) moved out to the suburbs. 17 per cent, either contracted, closing their Edinburgh regional office or could not be traced, implying that if they did move it was outside the Edinburgh telephone district. When these figures are compared with the data collected from the questionnaire, certain discrepancies are apparent. When asked their preferred location on moving from their present site, 50 per cent of the firms wished to stay in the central area, 12 per cent in the 'Inner Suburbs' zone, 26 per cent in the suburbs, with 8 per cent moving outside Edinburgh and the remainder uncertain, awaiting policy decisions. These differences can be explained in that the latter data were collected from potential office movers whereas the secondary study analysed firms who had already moved. On the other hand, it would be wrong to assume that the trends predicted from the secondary study were totally accurate as most offices analysed were of a small to medium-sized nature. Many of the potential office movers from the centre of town are also drawn from large, new office blocks, for example, insurance companies. Nevertheless, it is difficult to predict the location of future office movers because of the uncertainty of receiving planning permission, especially in the suburbs. Firms may wish to move outside the centre, but during the time lag while their planning application is being considered alternative suitable office accommodation may become available in the central area.

Suburban Offices

Initially, it was hoped that this secondary study would produce enough material to provide a sample for interviewing firms who had decentralised from the central area. However, as this number was too small, all suburban firms were interviewed, excluding central government offices, bank departments and the Post Office, all of which have been discussed.

Offices in Leith were also omitted from the study. Although Leith has been incorporated into the city boundary, it remains a distinctive port town. Most offices are clustered around Bernard Street specialising in port activities (shipping agents, insurance brokers); the offices of grain and whisky merchants are also prominent in Leith. However, these firms have been established there before 1945 although some premises have been modernised since then. Because Leith has retained much of its character and no firms have moved there from central Edinburgh it was not considered to be a part of suburban Edinburgh for the purpose of this study.

Government boards were interviewed because they function in much the same way as a private firm. The interviewing format for suburban offices was identical to that in the main questionnaire for the central area. Of the 32 firms interviewed, twelve were professional offices, seven were general business offices, three government boards, one insurance company, a finance company and eight research organisations. In total these firms employ 4,445 people and occupy just under 900,000 square feet of office space.[1]

Research Organisations

Suburban locations have been favoured by the growing number of government sponsored research organisations mainly in the field of animal, marine and land use research. These organisations have tended to cluster in a small area from Marchmont to Kings Buildings with the Scottish Marine Biological Association at Craighall Road in the north and the Animal Diseases Association at Gilmerton in the south being the exceptions to this concentration of research activities.

These various research units are sponsored by different grant awarding bodies. The Natural Environment Research Council (N.E.R.C.) finances research into land use and natural resources, namely, the Nature Conservancy, Geological Sciences and the Marine Biological Association. The Agricultural

1. Figure 3.4 should be referred to during the remainder of the chapter.

Research Council (A.R.C.) was set up in 1931 and it placed two research units for Great Britain in Edinburgh, the Animal Breeding Research Organisation and the Poultry Breeding Research Centre. The Seismology Research Unit is independent depending on individual contributions, and the Hill Farming Research Organisation and the Animal Diseases Association are government financed although private contributions are common.

The Animal and Poultry Breeding Organisations, along with the Marine Biological Association, are national research units so contacts with government departments in Edinburgh are insignificant as the main research committees are London based. However, contacts with the University, especially the Regional Computer Centre, are important and both the Breeding Organisations have had new buildings constructed on the Kings Buildings campus in the last five years. The Hill Farming Research Organisation grew out of the Hill Farming Advisory Committee for Scotland, an advisory body attached to the Department of Agriculture and made up of civil servants and farming members. Today, the organisation is directly related to Edinburgh as the centre of government, and contacts with the Department of Agriculture are close in both the financial and research spheres. Contacts with the Animal Breeding Research Organisation are also important.

The Nature Conservancy is also tied closely to government departments in Edinburgh. A Highland location would have appeared more appropriate in terms of the Conservancy's field operations but much contact is required with the Department of Agriculture and the Scottish Development Department in relation to land acquisition, land use and research, while advanced library facilities and university ties were also important considerations for an Edinburgh situation.

The links with Kings Buildings are important to all the Research Organisations and the Animal Diseases Association is no exception. A computer link is to be installed but the Association's more remote location may be explained in that its main contacts are with the farmers in the surrounding countryside and veterinary officers, the former providing the sample, the latter the diagnosis. The oldest established research body in Edinburgh is that of Geological Sciences in 1902. Apart from its contact with Kings Buildings school children and other classes are frequent visitors to its library and laboratories. The Seismology Unit is adjacent to one of the Geological

Sciences' offices (there are three). This research unit moved from London in 1964. Links with computer terminals are imperative, so linkages with Robertson Avenue, Kings Buildings and even London have some importance.

Most of these organisations have grown rapidly in recent years and much new building has taken place to cater for this growth. Apart from the Animal Breeding Research Organisation which moved to new premises at Kings Buildings from South Oswald Road (south inner suburbs) in 1967, all of the other organisations occupied converted mansions. However, this growth and need for space has resulted in these research units either building an extension to their present premises or moving to new buildings elsewhere. The Nature Conservancy has increased from 18 to 45 staff from 1952 to 1966 and has since then added another 35 personnel. This research body applied for planning permission to build an extension and had it granted, so it will remain in the same location. The Poultry Research Centre and the Animal Diseases Association did likewise; the former increasing from 70 to 133 staff from 1962 to 1972, the latter with a staff of 156 has shown an increase of 50 per cent in the same period.

Geological Sciences is having a building constructed at Kings Buildings so that it can consolidate its three scattered offices. Hill Farming at present is only in temporary accommodation as the organisation will be moving to Bush - a few miles outside the city boundary in the south - west - within a year of the construction of new premises. Bush is the main research station for agricultural activities so this move by the Hill Farming Research Organisation consolidates its office staff with its laboratory (farm) staff. The Scottish Marine Biological Association is phasing out its Scottish operations and by 1975 all of the organisation will be concentrated in Plymouth.

In the next few years the planning problems that these organisations have faced will have been resolved. The seven remaining research units will be in the southern part of the city with Hill Farming out at Bush. As in the past, staff recruitment should not be difficult. Most of the staff are professional or scientific, the numbers of secretarial, clerical staff being nominal. The Marine Biological Association finds these small numbers of typists difficult to recruit but its location is fairly remote so this is understandable. The units at Kings Buildings share the facilities provided by the University and the Moredun Institute at Gilmerton use the N.C.B.'s canteen facilities so most types of staff are willing to work in these sites.

Professional offices are widely dispersed throughout the length and breadth of suburban Edinburgh. The majority of firms interviewed were architects (seven) with two consulting engineers plus one of each of the surveying, legal and accountancy professions. This would have been expected from the material collected in the questionnaire as architects showed most mobility in the 'Other Professional' category, surveying being very limited and in general restricted to intra-central moves (the firm in the suburbs is only half a mile from the centre). It is surprising to find that a legal firm had moved out of the central area at all as none had anticipated moving out from the previous study. Accountancy firms had shown more flexibility than the legal profession but most moves were to the 'Inner Suburbs', very few anticipated a move into the outer suburbs.

It could be significant that the surveyor, lawyer and accountant plus three of the architects had all been established in Edinburgh before 1945 and that the latest any of these firms had opened premises in the capital was 1963. This would seem to imply that once a firm becomes known and secures its clientele pattern it can afford the risk of moving out of the city centre, the main catchment area for business. All but one of the professional firms, an architect's in Inverleith Row, had started their business in the central area. This firm has always been on this site since its establishment in 1954 mainly because it is a family business with the office in the lower floor, the house in the upper floor of the building. The other firms have moved from the central area very recently - between 1965 and 1971. The architects, with the exception of one, moved from the West End to the suburbs, the consulting engineers had a George Street and a Princes Street address prior to moving, the surveyor moved from Queen Street, the lawyer the West End and the accountant the Bridges. Although they were in different central area locations, they were unanimous in their main reason for moving - inadequate car parking facilities for clients and staff. One or two of the larger, expanding firms gave lack of space or the consolidation of their scattered offices as other reasons; the expiration of lease was also mentioned, but poor car parking facilities was the fundamental reason for moving out of the central area.

On moving out these firms converted country mansions, old railway houses, agricultural buildings and even castles in the suburbs of Edinburgh. The difficulty in acquiring many of these properties and receiving planning permission to take over these premises accounts for the widespread distribution of the professional offices. Only one firm, a firm of accountants, is in a new building and this is shared with a design/construction company at Loanhead on the Pentland Industrial Estate. These firms have not created much impact on leaving the centre and moving out to the suburbs. If they had all moved to the same quarter of Edinburgh, their total area would have been large enough to attract more firms and other economic activities. However, three firms only employ 3, 4 and 7 people while the largest - the head office of a consulting engineering firm at South Queensferry - has a staff of 100. The remaining firms are small to medium-sized employing between 12 and 35 people. The building trade has been in a recession for a few years so three architects and one surveyor have shown small decreases in staff over the last five years and the two consulting engineers are the only firms to show any increase in number of employees.

None of these firms has regretted moving to the suburbs, and none of them intended to move back into the central area. The legal and accountancy firms depend primarily on their clients coming to them, so the removal of their office to areas with adequate car parking is an advantage to their present clients and may attract new clients also. The 'Other Professional' firms do a good deal of commuting both ways- clients to them and vice versa - so a suburban site with car parking facilities is once again advantageous. Although some firms had only moved out a year ago, they did not expect to lose any business by taking this step. The more established suburban firms did not lose any clients by the move. As already stated, this could be the result of a prolonged office situation in the centre of town which formulated clientele patterns, but many of these firms do not necessarily have most of their clientele in the central area. One firm of consulting engineers and two architect firms are head offices and do business throughout the country, while the accountant and another architect do most of their business with clients from suburban Edinburgh or the Lothians.

Staff must be considered when a firm anticipates moving out of the central area. The reactions of staff members to a move can be instrumental in the firm's decision to move, and where in Edinburgh it will move to. All of these professional firms have had the minimal amount of trouble in keeping their present staff or recruiting new employees. Apart from key personnel who tend to move with the firm, the more remotely located firms have employed local, married women for secretarial/receptionist posts. Other firms are either close enough to the centre to have most shopping and other facilities at hand or they are in proximity to suburban shopping areas or towns outside Edinburgh (South Queensferry). One firm has gone out of its way to provide services for its employees. It arranges a bus or car service to transport its staff to and from work. The firm constructed two new wings on to the castle it acquired for its new office. The new buildings are the main working offices but the castle is used as a conference and recreational centre with its own bar, gymnasium, television and canteen.

Some firms on moving out from the central area have had new buildings constructed on the periphery of the central area. Two 'Manufacturing' offices, an insurance company and a finance house, come into this category. The insurance company is on the point of moving from temporary premises, which are in poor condition, in George Street. The main reason why the other firms moved was that their former premises were too small and in the case of one 'Manufacturing' firm, its offices had become scattered throughout the central area.

The finance company has its national headquarters in Edinburgh and up until 1967 its office was in the West End. However, business expanded to such an extent that more space was required and as the firm wished to own the building, the office at Orchard Brae was ideal for the firm's purposes. The finance company operates in the same way as the head offices of the insurance companies in the city. Because they are head offices, most of the work is paper work, large numbers of clerical and secretarial staff are employed and direct contact with clients is not essential. However, it decided to incorporate its Edinburgh branch office into this building and there has been a small fall off of business from Edinburgh clients in the last few years. The firm expects to expand in the future, but not quite at the same rate as the last five years when it grew from 320 to 475 in staff. The head offices of insurance companies appear to be following this trend with three large companies anticipating moving out (questionnaire data). However, they will leave their branch office behind, unlike the finance company, as this is the firms' main link with the general public.

The short distance move from George Street to the edge of the central area is quite important to the insurance company. This firm deals with composite insurance and is a branch office, so contact with clients and other insurance companies is regular. Whether the extra car parking facilities will compensate for the slight dislocation of communication patterns is difficult to say as the company has not taken up residence as yet.

Of the two 'Manufacturing' offices, one is a head office, the other a regional sales office. The former moved its computer to these premises and then decided to consolidate its scattered offices on the same site. As buying and orders are part of this office's function, a site providing adequate car parking facilities would also be advantageous. The regional sales office has a high proportion of representatives on its staff who work away from the office, so although expansion was the main reason for moving, car parking facilities at the new site ~~was~~ were an extra bonus to the firm.

Staff recruitment is not a problem to firms who have moved short distances because they have not moved far enough away from the centre to be unattractive to the needs of staff members.

The finance house has a short lunch break so that its staff can finish early, before the rush hour, and can shop or use the facilities in the town centre before closing time.

In total these firms employ a staff of 815. As can be seen from Figure 3.6, the fringe of the central area will attract a further two or three firms with a total employment of up to 2,000 people in the next five years. Many of the new office blocks built in the central area in recent years have been built away from the main central office zone on the southern quarter of the central area, for example, Argyle House (Central Government), Lauriston House (N.C.B.), West Port House (P.O.) and Canning House (P.O.). The central area of Edinburgh is expanding, causing traffic congestion in areas away from the main central office zone. Few of these firms moving to the Ravelston and Roseburn areas consider themselves to be decentralising. Unlike the professional offices, car parking is not the first priority on their list, but the acquisition of sites in the central area or near to it to accommodate an expanding, cramped office. As the sites for large offices are relatively scarce as potential areas clash with much of the classical landscape, new offices in the main central office zone are subject to a degree of planning control and restrictions. So, on looking for a site these firms have been building in Burgess's blight zone or in areas of open space on the periphery of the central area.

The remaining general business offices are scattered throughout suburban Edinburgh with two building contractors on the west side, two sales offices on or around Ferry Road to the north, and a firm of construction designers at Loanhead. Insufficient space and lack of car parking facilities were the reasons given by the building contractors for moving out of the central area. Of the firms interviewed they were the first to move, decentralising in 1958 and 1960. One, a head office, converted a country mansion in Corstorphine. The firm has grown considerably in the last five years, increasing in staff from 40 to 60, although the recruitment of typists and clerical staff has not been easy. Nevertheless, most of the staff are happy working in this site, as it is only 50 yards from St John's Road, Corstorphine's main street, with its banks, shops and hotels. The other contractor, a regional office, is more remotely located at Barnton on the north-west side of town. The firm has been growing gradually over the last ten years, adding extensions to the original building, and it now has a staff of 150. Many of the firm's staff come from Fife and commute daily across the bridge and in addition the firm provides a bus service from St. Andrew Square for Edinburgh staff. However, it does not have a canteen so staff have to enjoy pub lunches or bring their own - a disadvantage of being in a residential neighbourhood.

Both sales offices employ a considerably smaller number of employees (20 and 21). One firm has decreased in staff in the last six years because of the centralising of staff to its main Scottish office in Glasgow. However, the conversion of a country house in Ferry Road has provided the firm with an ideal site for conducting its business. With no parking problems and being on the main communication network with its other offices, sales representatives find their business organisation much easier than when they were in the centre of town. The other office is located in the same part of town. In 1971 the company centralised its regional office, then in George Street, and its sales office in Leith to a new building in Newhaven Road adjacent to its warehouse. The new office has facilities the older ones lacked: adequate car parking facilities, conference rooms and a modern office. Many of the firm's staff are representatives covering the East of Scotland so the new location is suitable for this section of staff. The difficulty of staff recruitment experienced by other firms in peripheral locations was overcome by payment at above average rates.

The construction firm at Loanhead was only established in Edinburgh in 1966, but after five years in the central area, the firm, along with its accountants, jointly decided to move out to this industrial estate. Both managers are close personal friends so, as both their firms were suffering from the same problem - insufficient car parking facilities, they decided to apply for a building grant from Midlothian County Council to move their business to Loanhead. The County Council accepted the construction company's application but the accountant's office was not granted fiscal aid. The move has been beneficial to both firms as car parking facilities are available. All of the staff are well trained, technical personnel so they all moved out to Loanhead with the firm.

Of the three government boards who have decentralised, the Scottish Gas Board has had the greatest influence on office patterns within the city. Initially, the move caused a storm of controversy which caused the Gas Board to doubt the wisdom of its decision, but lately the problem of staff recruitment has subsided and the Board has no regrets on moving out from the centre.

In 1964 the computer was installed at Granton, adjacent to the gas works, on land that belonged to the Gas Board. It was then decided to centralise all scattered departments throughout Edinburgh and locate at Granton beside the computer. However, although the Board provided a subsidised canteen, staff turnover was particularly high - at one stage as high as 125 per week. Meanwhile the Board's activities were expanding and with the boom in natural gas the Board's head office employment increased from 900 to 1,400 in seven years. Fortunately, the staff situation has stablised either because most of the female staff employed are married, or that the unemployment situation at the present time is so acute that job opportunities are at a premium. Because of the lack of shopping facilities, the Board does allow travelling shops to visit its office. The Board has continued its process of decentralisation at the regional level also and the Edinburgh regional office has moved into a new building at Blandfield in the northern suburbs, taking with it a staff of 800.

The only organisation, apart from the research units, to indicate that it was going to move from suburban Edinburgh to outside the city boundary was the Scottish Certificate of Examination Board. Its function was previously performed by the Scottish Education

Department, but the Board was created in 1965 and housed beside other government departments at Saughton in the south-west of town. As the number of students taking the Scottish Certificate Examinations has increased significantly from 1965 to 1972, the number of staff required has doubled during this period. The number of staff employed varies throughout the year. 65 permanent staff were employed in 1972 but 85 staff were also employed full-time and 285 part-time on shifts during the two month summer period when marked exam scripts were returned to the Board. The increasing volume of stationery has resulted in cramped conditions and the need for a larger building. At present the Board is in a modern office at Causewayside near the city centre, but it rents this accommodation and there is no space to implement expansion plans. The Board has therefore decided to move to Dalkeith in the near future where it can construct its own premises in an area of sufficient space to allow for expansion. On moving, it does not expect to lose many of its permanent staff and the recruitment of part-time staff should not be difficult from the local community at Dalkeith.

Finally, the Milk Marking Board, remotely located on Corstorphine Hill in the western suburbs, moved out from the West End of Edinburgh because of lack of space and insufficient car parking facilities for key staff, who commute a great deal between farms and the office. A new artificial insemination centre was built next to the office so the Board has gained considerable advantages from the move. As the three clerical female staff who would have been more likely to leave reside at the west side of town or at the Broxburn/Bathgate area in West Lothian, there has been no change in personnel after the move.

Concluding Remarks

Although office developments in the suburbs have surpassed central area building in recent years, firms in the secondary study showed a greater reluctance to move from the centre than offices in the main study. However, although only 11 per cent of the firms moved to the suburbs, fewer offices are replacing them by moving to central Edinburgh from other parts of the city or from other regions. Office mobility is mainly confined to the central area with the greatest demand for office space being for the small converted office.

Within the central area, the office increased its importance at the expense of shopping and other non-office activities. Of the 67 properties placed on the market by the estate agents, 35 were offices. Eighteen months later the ratio had increased to 38:29 in favour of the office.

The type of firm involved in short central moves is similar to that found in the primary study. Investment trusts, lawyers, some insurance companies and 'Business Service' firms are consolidating their position in the central area. However, some professional and general business offices are moving their premises outside the central area, but still within the 'Inner Suburbs' zone. Over 550,000 square feet of office space were demanded in this peripheral zone from 1965 to 1972. Over 500,000 square feet of this total were required for large scale office developments (mainly insurance) in areas of waste ground or areas formerly occupied by disused industrial premises. Parking and planning controls have forced many larger organisations to the fringe of the central area so that the commercial heart of the city is spreading out towards the inner suburbs.

Out of the 75 firms analysed in the secondary study, only 8 moved out of the central area. 3 of these firms had moved outside the city boundary - an architect to South Queensferry and a design engineer firm and its accountants to Loanhead. A consulting engineer moved from Princes Street to the outer eastern suburbs, a sales office centralised its offices in the outer northern suburbs and the Gas Board relinquished many of its central area properties on the centralisation of its departments at Granton. The old inner suburbs were not a favoured locational choice by firms in recent years with only two firms - a surveyor and a sales office - moving to Gorgie and Roseburn respectively.

All of the 32 firms in the suburbs are happy with their present location and do not intend to move back to the centre of the city. The research organisations are building extensions to their converted mansions or will be moving to new buildings at the University campus, Kings Buildings. The Hill Farming Research Organisation is moving out of the city to its research laboratories at Roslin, three miles south of Edinburgh, while the Marine Biological Association is closing its Scottish office to concentrate its office activities in Plymouth. The Scottish Certificate of Examination Board is the only other office intending to move by vacating a new building in the inner suburbs to move out to Dalkeith, three miles south-east of the Edinburgh boundary.

Most of the firms in the suburbs had moved to their present location from premises in the centre of town. Lack of space or car parking were the main reasons for moving. However, the length of time that these firms were established in the centre was also a major factor enabling them to move out. A general reputation would be established and contacts with clients would be secured during this period so that moving out would not lose them unnecessary business. It would be unlikely for a newly established firm to acquire a suburban office site.

The larger private organisations are unwilling to move long distances from the central area. The build up of financial and general business offices around the western fringe of the central area illustrates this. If the numbers of female, clerical staff are high, firms have difficulty recruiting staff. The public transport system converges on the centre of town so this type of staff, which is so important to the larger organisation, prefersto work in the central area.

The small professional and general business firms have moved further away from the city centre - in some cases to towns a few miles from the capital. This type of firm is not so dependent on routine staff so its office is locationally footloose. Many of these firms are run like family businesses. The firms organise car pools to bring all their staff to work and facilities are provided for recreation.

Two medium-sized construction firms are in the outer western suburbs in areas of new housing developments. Staff is tapped from these areas and there is little difficulty with recruitment as shopping and other facilities are available in the well established shopping centre of Corstorphine.

The Scottish Gas Board has been the only firm to experience difficulty in recruiting staff. It requires a large administrative labour force but its remote location in the outer northern suburbs has been unattractive to potential employees. However, the situation has improved considerably in recent years. Three factors have eased the problem of staff recruitment. Many of the Board's clerical staff are married women from nearby housing estates, a new bus route has facilitated commuting for other staff, and the availability of travelling shops who frequent the site have made this location more desirable to staff.

Conclusion

Edinburgh is an excellent centre for the study of office activities. Three-quarters of the city's labour force is employed in service industries and the proportion of numbers employed in 'office industries' to total employment is higher than in any other provincial city in Great Britain. Buchanan (1972) anticipates that 78.5 per cent of the working population will be employed in service industries by 1991 so that the service sector will be increasing its importance in the city's economy. He assumes that the employment trends of the 1960's will continue so that office activities will increase their share of total employment at the expense of other sectors.

If this anticipated high growth-rate in the office industry is realised, there could be a shortage of office space in the future, especially within central Edinburgh. By studying office mobility and the links between offices within the central area it is possible to analyse which type of firm may remain in the C/A and the type of firm that may move to the suburbs.

In the primary study it has been shown that face to face contacts are important to many firms in the central area. Some firms such as solicitors, building societies and general and composite insurance companies have strong overall contact patterns with all firms in the C/A; other firms such as travel agents, estate agents and advertising agencies have either important links with a small section of firms in the C/A or they have contacts with the general public (their clients are therefore not associated with a profession).

Some firms with weak linkage patterns are moving out of the C/A and are moving to the suburbs. Several life insurance companies hope to acquire sites in the suburbs for their head offices because the staff in these offices are primarily concerned with routine, administrative business which generates contacts of a 'programmed' nature. Nevertheless, they will leave their branch offices in a central area location because these offices provide the main link between the firms and their clients. A building contractor anticipates moving its headquarters to the northern suburbs but it also will leave its sales office within the C/A.

However, although some organisations have weak face to face contact patterns, they do not anticipate a move out of the central area. Investment trusts, bank head office departments and some government bodies will remain in the C/A. Prestige and tradition play an important role in the locating of these offices and although footloose government and banking departments have been decentralised when lack of space became a problem, it is unlikely that the traditional financial axis in central Edinburgh will ever be substantially eroded.

Although face to face contacts are important in tying firms to the central area, other locational factors are responsible for firms anticipating a move to the suburbs. Most firms (76 per cent of those in the sample) require a car in their business and many of these firms are dissatisfied with the car parking facilities in central Edinburgh. Car parking has only become a problem for firms in the last decade. During this period many professional and sales firms have found that the time and money involved in looking for a car parking space near their office has resulted in a lack of efficiency, so they have moved to the suburbs. Architects, surveyors and engineers commute from their offices to building sites so, although they have strong contacts with other C/A firms, a lack of adequate car parking facilities forces some of these firms to move to the suburbs.

More and better car parking facilities could be provided within the central area. Underground car parks can be constructed at Princes Street, Queen Street and Belford Road while vertical car parks can be built at numerous locations throughout the C/A. However, opposition from amenity groups to schemes of this nature would make these plans unacceptable on environmental grounds. Buchanan's proposals to limit parking in the C/A to short-stay parking were influenced by these environmental considerations. These parking controls in the centre could accelerate the movement to the suburbs by firms who need a car in their everyday business.

The main reason why firms move out of the C/A is that there is a lack of office space in central Edinburgh. The larger organisations are being forced out of the C/A because many of their departments are in office accommodation scattered throughout the centre. As these organisations continue to grow, the pressure increases to consolidate these scattered offices. They cannot build in the centre because of the Corporation's planning restrictions with regard to height and frontage so they are forced to look for a site elsewhere. Over a decade ago, a planning application for an extension (mainly vertical) to the George Hotel was rejected because of the effect it would have on the central Edinburgh skyline. Russell's (1967) superimposed aerial photographs illustrate this showing the hotel when viewed from different parts of the city. More recently, in 1973, a property developer had a planning application refused to build a 270 foot office building at Haymarket for similar reasons.

Less than 10 per cent of the firms were dissatisfied with their C/A location so it would appear that if parking and planning controls were more flexible, firms would remain within the C/A. Prestige and tradition have been more important factors in the past, but more recently firms have been forced to consider the value of remaining within the C/A. Linkage patterns show that firms with weaker contacts are now moving out whereas previously they were content to remain in the C/A. Therefore, linkages play an important role in firms' locational decisions. Firms such as lawyers, estate agents, travel agents and building societies are tied to the central area because of their links with clients. Some organisations have been partially decentralised, moving out their routine business to offices in the suburbs, but leaving offices behind in the C/A. Smaller professional and sales firms have been moving all of their businesses to the suburbs. These firms and the larger organisations that are moving part of their offices out to the suburbs consider other locational factors such as lack of space and inadequate car parking facilities as more important than their ties with firms in the C/A.

The results from the secondary study endorse some of the conclusions that had been reached in the main study. The increasing relative importance of the office function over retailing in Edinburgh outlined by Freeman and Buchanan was a trend evident within the central area. Over a period of eighteen months four shops were converted into offices while only one office was renovated for retail purposes. The remaining properties placed on the market by the estate agents did not change use.

As most of the offices in the secondary study were small to intermediate in size, office mobility was mainly confined to the C/A and the greatest demand for office accommodation was for residential property which could be converted into office premises. As in the primary study, investment trusts, lawyers, general insurance companies and business service firms are consolidating their position within the C/A while other professional sales firms have been moving to the 'Inner Suburbs'.

Of the 75 firms analysed, only 5 moved out of the central area to the outer suburbs with another 3 firms having moved to satellite towns outside the city boundary. This was an unexpected conclusion as the amount of office accommodation constructed in the suburbs from 1968 to 1972 was greater than that built in the centre during this period. It is possible that the boom in suburban office building has come to an end. Government bodies - who have provided a lead to private organisations by decentralising their offices - have completed their office building programme. Private firms are finding it almost as difficult to receive permission to build in the suburbs as they have done in the centre. This is unfortunate. As firms are being forced out of the centre because of the Corporation's parking or planning controls, it would seem practical that they should move to areas designated for commercial development in the suburbs. However, the Corporation has not zoned these areas for commercial development. As these sites have not been made available to private firms who wish to move out of the centre, some of them have indicated that they may have to move away from Edinburgh to acquire a suitable site.

South-west Edinburgh has been the favoured area for suburban developments because of its accessibility to the M8, Turnhouse Airport and suburban shopping centres. However, sites in this location are scarce because of the difficulty in receiving planning permission. It is Corporation policy to maintain the residential character of suburban centres thus, more recent applications have been for sites in the 'blight' zone around the city centre. Over 550,000 square feet of office space were demanded in this zone from 1965 to 1972. Much of this total was required by insurance companies who wished to develop run-down property and waste sites in the 'Inner Suburbs'. As the commercial heart of the city spreads towards the inner suburbs, Buchanan's proposals for central area car parking controls and suburban office developments are partially nullified by the Corporation's office location policy. If the Corporation designated selected suburban areas as secondary office centres, the building of ring roads, as recommended by Buchanan, would enhance the development of these suburban sites whilst relieving pressure from the central area. As firms are having as much difficulty in receiving planning permission in the suburbs as in the C/A, they have been acquiring sites in the 'Inner Suburbs'. So in the future traffic congestion will not only be a problem to the central area but to the inner suburbs.

Suburban office centres would probably be very successful in Edinburgh. Private organisations in suburban Edinburgh that had moved to the suburbs from the C/A approved their location and did not intend to move back to the centre. Most of the firms had moved because of a lack of space or because of car parking restrictions. These are the main reasons given by firms who are anticipating a move out of the C/A in the near future. However, all of these firms in the suburbs had been established in central Edinburgh for many years and most of them had only moved to the suburbs between 1965 and 1971.

The distance private firms are located from the C/A is a function of the size of each firm. The smaller professional and general business offices are locationally footloose, but the larger organisations are more dependent on large numbers of female clerical staff so they are located in the 'Inner Suburbs' in order to facilitate staff recruitment. These large private organisations have not followed the example of their government counterparts by moving to the outer suburbs. The trouble the Gas Board had in recruiting staff during the 1960's was probably a disincentive to long distance intra-urban mobility.

Although this study differs in approach from the other studies of intermediate-sized cities in Leeds and Dublin, comparisons can be made of the research findings in the three cities. The contrast in functional roles of each of these cities as an office centre illustrates the main differences between them. Dublin, the largest city of the three, employs half of Eire's office workers within its central area. Bannon (1972) states that 89 per cent of the offices in the central area are head offices[1] and that 85 per cent of the sample offices serve a national market. This contrasts with Leeds which is predominantly a regional centre. ('Offices in a Regional Centre' is the title of the research paper by Facey and Smith.) Only 16 per cent of the firms in the sample are head offices and they assume that this figure is probably high because many firms prefer the more prestigious title of 'head office'. Most offices are branch offices (57 per cent). The regional character of Leeds as an office centre is further accentuated in that 62 per cent of the offices serve a regional market, 30 per cent, a local market, with the remainder serving the whole of the country. Edinburgh has a more even distribution of head offices, branch offices and offices in the 'only office' category. This reflects the well-balanced nature of office employment within the central area. There are many small offices serving a local or a regional market, a similar number of firms (41 per cent of them) serving Scotland, while the remaining firms, usually head offices, serve a national or an overseas market.

1. He qualified this by stating that 133 firms, that is, 66 per cent of the total, have no other branch office.

The types of office which have been established for the longest time in all three cities are those in the financial and professional categories. These offices also generate the strongest linkage patterns. The main difference between the contact patterns of the three cities is that central government links are more important in Dublin and Edinburgh than in Leeds. The firms which have only recently been established in all of the cities are service offices. Those firms gain a low score in all the cities but many of them have strong contacts with the general public and prefer a central location.

In Leeds and Dublin the types of firm least likely to move and those who would gain the least from a move are similar to the office categories showing least mobility in Edinburgh. In Leeds, firms in the financial and professional categories are tied to the central area; in Dublin similar functional categories are concentrated within the central area because of business links, but other firms such as travel agents and estate agents are tied to the centre because this area provides the greatest zone of accessibility for their main clients - the general public.

The frequency of office moves is an important characteristic in Edinburgh, Leeds and Dublin. Indeed, almost the same proportion of offices sampled in Leeds and Edinburgh had relocated within the last twenty years (45 per cent compared to

44 per cent) and the same number anticipated a move within the next five years (31 per cent). The reasons for moving were the same in both studies. A lack of central space was the main reason for firms moving to their present site, but inadequate car parking facilities is becoming a problem for firms who require a car in their everyday business. Firms anticipating a future move in Leeds stated that car parking difficulties would be the primary factor that would make them consider re-locating.

In Dublin, car parking is only a secondary factor influencing locational decisions. Physical factors, such as lack of space, expiry of lease and the poor condition of premises, are the main factors influencing firms to re-locate. The main locational factors creating office mobility in London are also physical factors (Cowan, 1969; R Hall, 1970). The provision of car parking facilities is not considered to be of major importance in central London because most businessmen walk to their rendezvous. However, lack of space is the main factor influencing firms to re-locate in all cities, regardless of size. Cowan (1969) states that in London, firms very rarely make a once and for all decision about their accommodation. He maintains that firms have a continual struggle to remain within the central area so they acquire premises that are only suitable for a short period of time. This shortterm approach to re-location is apparent in Edinburgh. A major insurance company demolished and rebuilt its office in St. Andrew Square in order to bring all its staff together in the one building. Unfortunately during the re-construction of the building, there was a significant increase in staff so the building was once again too small. This firm has now decided to move out to the inner suburbs so that it can allow for adequate expansion plans.

In all three studies the majority of firms were satisfied with a central area location. 78 per cent of the firms in Leeds were content to remain in the centre, while, in Dublin, three-quarters of the central area firms did not intend to re-locate, and of those who anticipated a move (51 firms), 56 per cent intend to remain within the central area. Although the forces of centrality are strong in all three cities, they tend to be stronger in Dublin than in either Leeds or Edinburgh. If firms did re-locate outside central Dublin, most of them moved to the Georgian sector, south of the central area, and there was little movement to the outer suburbs. In Leeds there was a net outflow of offices from the centre to the suburbs with both the inner and northern outer suburbs receiving an equal share of these establishments. As inadequate car parking facilities provide the main pressure to move, this problem will not be alleviated by moving to another central area location. Facey and Smith (1968) predicted that there would be a build-up of suburban office centres in the future. Unlike Edinburgh, it is the smaller firms who are being forced out of the core of the central area. The large office blocks that have been transforming the townscape of Leeds are more suited to larger, wealthier organisations and are not suitable premises for the smaller firm. In Edinburgh, planning restrictions have encouraged the reverse process, with the larger organisations being forced out of the central area in order to implement their expansion plans.

The research currently being carried out in Oxford suggests that strong centripetal forces operate within the city. However, as in Edinburgh, firms attempt to remain in the central area despite parking and planning restrictions. As there is a lack of adequate parking facilities and parking controls are in operation, some firms - mainly architects - have been moving to the suburbs. The height restrictions applicable to new developments designated for the central area have precluded the construction of large new office blocks. Therefore, several large firms requiring more spacious accommodation have been moving out of the central area. Nevertheless, some firms considered a central location essential so they have moved part of their office to a decentralised location leaving their sales office in the centre.

Gottmann(1973) claims that most firms decentralising from central Oxford serve a regional or national market. This is true of larger firms who have moved, or are anticipating a move, to suburban Edinburgh. Croft (1969) assumes that the possibilities for firms to move out from central London are greater than those of a regional centre because a large percentage of London firms serve a national market. This is substantiated by Goddard (1973) who believes that 80 per cent of all contact in central London is of a type that could readily be carried on outside the centre. Nevertheless, it would appear that firms are willing to remain within central London despite the attraction of peripheral areas.

If a firm serves a local or a regional market, the central area is usually the most accessible location for its office.

Therefore, decentralisation is not possible for many firms in Leeds because they have a local or regional office located within the central area. It has been shown that Edinburgh with a larger number of head offices has several large office blocks in the suburbs. Most of these buildings are occupied by firms serving a regional or national market. This is not the case in Dublin where firms, including those serving a national market, are reluctant to move out of the central area. This has caused the national government concern so they are contemplating the offering of incentives to firms in order to attract them to suburban or provincial locations.

Bannon (1972) states that linkages do not determine location or re-location patterns within central Dublin. In Leeds, Croft (1969) assumes that half of the firms in the central area have linkages that would be considered convenient, but not essential. As neither of these cities have rigorous planning controls, many firms with weak contact patterns can remain in the central area because they can acquire suitable accommodation there. Linkages play a more important role in firms' locational decisions in central Edinburgh. As the pressures to move intensify in the central area, firms are decentralising their office personnel involved in 'programmed' contacts. This trend is also evident in Oxford, another historic city. It is possible that cities ~~who~~ which have restored or preserved their architectural heritages are having difficulty in maintaining offices within the central area when lack of space or car parking facilities are important locational factors. In the early stages of office development within these cities, the historic character of the central area would be an important locational factor in itself. Firms were attracted to the centre because of the prestige involved in acquiring a well-known address. Economic considerations are now becoming more important than traditional or prestige reasons in Oxford and Edinburgh. Firms with weak contact patterns and no justification for being in the central area are re-considering the value of their location. However, although linkages would appear to influence locational decisions, they only play a secondary role to other locational factors.

APPENDIX 1

The Questionnaire for Central Edinburgh

INTERVIEW QUESTIONNAIRE

CONFIDENTIAL

OFFICE ORGANISATION IN CENTRAL EDINBURGH CASE NUMBER (1)

1) What is the precise nature of your business or profession?

---

2) Please indicate which one of the following areas most closely approximates to that served by your office:

a) The City of Edinburgh 1

b) Fife and the Lothians 2

c) Scotland 3 (2)

d) The United Kingdom 4

e) Overseas 5

---

3) Is your office:

a) A Head Office 1

b) A Branch Office responsible for sub-offices 2 (3)

c) A Branch Office not responsible for sub-offices 3

d) The Only Office 4

4.A) Is your office physically or organisationally associated with a retail shop, a wholesale shop, or warehouse, or a manufacturing/processing plant?

a) No 1

b) Yes, a retail shop 2 (4)

c) Yes, a wholesale shop/warehouse 3

d) Yes, a manufacturing/processing plant 4

4.B.) If your answer is YES, please indicate their location:

a) At the same address as your office 1

b) Outside Edinburgh (please state town) 2 (5)

c) At a different address within Edinburgh 3

If c) please give addresses:

Block No.
For our use:

....

.... (6)

.... (7)

---

5) In what year was your office established in Edinburgh?

a) Pre 1945 1

b) 1945-1959 (give year) 19 2 (8)

c) Since 1960 (give year) 19 3

---

6) In what year did you occupy your present site?

a) Pre 1945 (code) 1

b) 1945-1959 (give year) 19 2 (9)

c) Since 1960 (give year) 19 3

---

7) If your office was previously sited outside Edinburgh, please state:

a) The previous location

b) Why you moved into Edinburgh

8.A.) During which of the following periods of time were your offices built?

a) Pre 1900 1

b) 1900-1939 2

c) 1940-1949 .... 3 (10)

d) 1950-1959 4

e) Since 1960 5

f) Don't know 6

8.B.) If your office is in a building erected since 1950, was it built specifically for your occupation?

Yes 1 (11)

No 2

---

9) Were your present premises:

a) Built as an office 1

b) Converted from a dwelling house 2

c) Converted from a warehouse 3 (12)

d) Converted from any other use 4

e) Don't know 5

---

10) If you have moved to your present site from other premises during the last 20 years, what was your last previous address? (Please give full details if within Edinburgh, if not, please state town only).

Block No.
For our use

.... (13)

....

....

---

11) If you have moved to your present premises from another location during the past 20 years please indicate main reasons.

a) Demolition of building 1
b) Expiration of lease 2
c) Poor condition/layout/services 3 (14)
d) Insufficient floor area 4 (15)
e) Inconvenient location 5 (16)
f) Insufficient prestige 6 (17)
g) Insufficient car parking facilities 7
h) Rents/rates too high 8
i) To consolidate scattered offices 9
j) Any other reasons (please specify) 10

12.A.) Do you anticipate moving from your present premises in the next five years?

Yes 1
No 2 (18)

12.B.) If YES please indicate the main reasons:

a) Demolition of building 1
b) Expiration of lease 2
c) Poor condition/layout/services 3
d) Insufficient floor area 4 (19)
e) Inconvenient location 5 (20)
f) Insufficient prestige 6 (21)
g) Insufficient car parking facilities 7 (22)
h) Rents/rates too high 8
i) To consolidate scattered offices 9
j) Any other reasons (please specify) 10

13.A.) What is the total number of people working in your office at the present time (including Directors, Partners, Managers etc.)?

a) Male .... (23)

b) Female .... (24)

13.B.) Please give the breakdown of these numbers in terms of occupation:

	male	female		
a) Directors, Partners, Managers	....	....	(25)	(34)
b) Professional	....	....	(26)	(35)
c) Secretarial	....	....	(27)	(36)
d) Clerical, Senior	....	....	(28)	(37)
e) Clerical, Junior	....	....	(29)	(38)
f) Technical	....	....	(30)	(39)
g) Representatives, Travellers etc.	....	....	(31)	(40)
h) Trainees	....	....	(32)	(41)
i) Others	....	....	(33)	(42)

---

14) Does the number of people who work in your offices at the present time differ from the number who worked here ten years ago (or from when you opened these offices if this was less than ten years ago)?

a) No 1

b) Yes, increased by 2 (43)

c) Yes, decreased by 3

---

15) Do you anticipate any significant change in staff in the next five years?

a) Increase (approx) 1

b) Decrease 2 (44)

c) No significant change 3

16.A.) Is it easy to recruit staff in Edinburgh)

a) Yes 1

b) No 2 (45)

16.B.) Do you find difficulty in recruiting the following types of staff?

a) Managerial 1 (46)

b) Professional 2 (47)

c) Secretarial 3 (48)

d) Clerical, Senior 4 (49)

e) Clerical, Junior 5 (50)

f) Technical 6 (51)

g) Representatives, Travellers etc.......... 7 (52)

h) Trainees 8 (53)

i) Others 9 (54)

17.A.) Did members of your staff attend any of the following courses during 1970?

a) Management courses 1 (55)

b) Business courses 2 (56)

c) Finance/Accounting courses 3 (57)

d) Other commercial courses 4 (58)

e) Professional Courses 5 (59)

f) Secretarial courses 6 (60)

g) Language courses 7 (61)

h) Computer courses 8 (62)

i) Technical courses 9 (63)

17.B.) Where did they attend these?

....

---

18) Does your firm run any major staff training courses?

a) Within Edinburgh 1

b) Elsewhere 2 (64)

c) No courses 3

---

19) Do you use Data Processing Equipment or Computers in your organisation?

a) No 1

b) Yes, we have installed equipment in this office 2

c) Yes, we have installed equipment at another office within our organisation 3 (65)

d) Yes, we employ time on equipment 4

---

20) Where are your main suppliers (of office equipment, stationery etc.)?

a) The City of Edinburgh 1

b) Fife and the Lothians 2

c) Scotland 3 (66)

d) United Kingdom 4

e) Overseas 5

---

21) What is your MAIN method of contact with your customers/clients? (Indicate one only please)

a) By their visiting your firm in your own office 1

b) By you or your staff visiting them in their office/home/elsewhere 2 (67)

c) By other than face to face contact 3

---

22) Please indicate which of the following means of communication your office has used in the past week to contact:

i) Clients/customers
ii) Other firms/organisations
iii) Other offices/departments of your organisation (internal communications)

	(53) Clients/ customers		(54) Other firms/ organisations		(55) Internal communication	
a) Personal contact at your office	1	(68)	1	(77)	1	(86)
b) Personal contact elsewhere	2	(69)	2	(78)	2	(87)
c) Public Postal Service	3	(70)	3	(79)	3	(88)
d) Private Messenger	4	(71)	4	(80)	4	(89)
e) Railway Parcel Service	5	(72)	5	(81)	5	(90)
f) Public Telephone	6	(73)	6	(82)	6	(91)
g) Private line telephone	7	(74)	7	(83)	7	(92)
h) Telegraph/teleprinter/ Telex/Datel	8	(75)	8	(84)	8	(93)
i) Radio	9	(76)	9	(85)	9	(94)

22.A.) Do you intend to use recent forms of telecommunications, e.g. videophones, Confra vision and Facsimile Transmission in your office?

Yes 1 (95)

No 2

---

23) Please indicate the frequency with which you have personal, face to face contact with the following categories of firms or organisations.

a) Customers/clients	60	50	40	30	20	10	(96)
b) Competitors/similar firms	60	50	40	30	20	10	(97)
c) Finance	60	50	40	30	20	10	(98)
d) Insurance	60	50	40	30	20	10	(99)
e) Property	60	50	40	30	20	10	(100)
f) Accountants	60	50	40	30	20	10	(101)
g) Lawyers	60	50	40	30	20	10	(102)
h) Other Professional	60	50	40	30	20	10	(103)
i) Manufacturing Offices	60	50	40	30	20	10	(104)
j) Office Supplies	60	50	40	30	20	10	(105)
k) Construction Offices	60	50	40	30	20	10	(106)
l) Travel Agents	60	50	40	30	20	10	(107)
m) Business Services	60	50	40	30	20	10	(108)
n) Advertising	60	50	40	30	20	10	(109)
o) Associations, Societies	60	50	40	30	20	10	(110)
p) Banks	60	50	40	30	20	10	(111)
q) Local Government	60	50	40	30	20	10	(112)
r) Central Government	60	50	40	30	20	10	(113)
s) Organisations in London	60	50	40	30	20	10	(114)
t) Organisations in other major cities	60	50	40	30	20	10	(115)
u) Universities, libraries and other research agencies	60	50	40	30	20	10	(116)
v) Hotels, clubs, cafes	60	50	40	30	20	10	(117)
w) Others	60	50	40	30	20	10	(118)

24) Are there any particular types of firms, offices or persons with which your firm needs contact of a face to face nature so frequently (for the efficient running of your business) that they must be located very close together (say five minutes walk)?

---

25) How important is the following means of transport in the running of your business? (In terms of movement of personnel, not products).

	a) Air		b) Rail		c) Road	
Essential	1		1		1	
Very important	2	(119)	2	(120)	2	(121)
Important	3		3		3	
Not important	4		4		4	

---

26) If there are any services which your firm as an office require in Edinburgh, but which are not available or are insufficient in quantity/quality, please state below:

27.A.) Are there any factors which make it essential for your business to be located in the Central Area?

27.B.) If YES, are these reasons above (27.A.) mainly of a "prestige" or "traditional" nature?

Yes 1

No 2

(122)

28.A.) Are you quite satisfied with your present office location?

Yes 1 (123)

No 2

28.B.) If not, are you actively considering to move to any of these locations?

1) The general area in which you would prefer your office to be located

a) Edinburgh Central Area as defined in study 1

b) Edinburgh Central Area as defined by Edinburgh Town Planning Department 2

c) Elsewhere in Edinburgh (specify) 3 (124)

d) Towns outside Edinburgh yet within 25-30 miles of Edinburgh City Centre 4

e) Elsewhere in Scotland 5 (125)

f) English Midlands 6

g) SouthEast England 7 (126)

h) No preference 8

i) Other (please specify) 9

2) If not, why not?

3) Although you are happy with your present office location, if good office accommodation was available would you be interested in moving to the following locations?

a) Edinburgh Central Area as defined in study 1

b) Edinburgh Central Area as defined by Edinburgh Town Planning Department 2 (127)

c) Elsewhere in Edinburgh (specify) 3

d) Towns outside Edinburgh yet within 25-30 miles of Edinburgh centre 4 (128)

e) Elsewhere in Scotland 5

f) English Midlands 6 (129)

28.B.) 3)g) South East of England 7

h) No preference 8

i) If other, please specify 9

---

29. Have you anything to add to the above which would be of assistance to us in our research?

....

....

....

Present Location (130)

THANK YOU FOR YOUR COOPERATION

John Fernie

APPENDIX 2

The Questionnaire for Suburban Edinburgh

INTERVIEW QUESTIONNAIRE

CONFIDENTIAL

OFFICE ORGANISATION IN SUBURBAN EDINBURGH

1) What is the precise nature of your business or profession?

---

2) Please indicate which one of the following areas most closely approximates to that served by your office:

a) The City of Edinburgh 1

b) Fife and the Lothians 2

c) Scotland 3

d) The United Kingdom 4

e) Overseas 5

---

3) Is your office:

a) A Head Office 1

b) A Branch Office 2

c) The Only Office 3

---

4) In what year was your office established in Edinburgh?

---

5) In what year did you occupy your present site?

6.A.) When was your office built? ....

6.B.) Was it built specifically for your occupation?

---

7) Were your present premises:

a) Built as an office 1

b) Converted from a house 2

c) Converted from a warehouse 3

d) Converted from any other use 4

---

8) What was your last previous address?

---

9) Why did you move?

10.A.) Do you anticipate moving in the future?

10.B.) What reasons do you have for moving?

11.A.) How many staff do you employ?

11.B.) What is the breakdown of these numbers in terms of executive/clerical-secretarial staff?

---

12) Have you increased your labour force in the last ten years?

---

13) Do you have any difficulty recruiting staff?

---

14) Do you provide facilities for staff? (Canteens, a bus service)

---

15) Is most of your work done at the office, or away from the office?

---

16) Do you have Telex or any other new form of telecommunication system?

17.A.) If you were previously located in the Central Area, have you lost any business by moving to the suburbs?

17.B.) Have you considered a move back to the centre?

---

18) What are the advantages and disadvantages of a suburban location?

Present Location

THANK YOU FOR YOUR HELP

John Fernie.

APPENDIX 3

Definition of 'Office Occupations'

1966 Census*

Telephone operators
Telegraph and radio operators
Messengers
Typists, shorthand writers, secretaries
Clerks, cashiers
Office machine operators
Civil service executive officers
Civil servants, local authority officials (so described)
Finance, insurance brokers, financial agents
Salesmen, services; valuers, auctioneers
Ministers of the Crown; M.Ps., senior government officials
Local authority senior officials
Managers in engineering and allied trades
Managers in building and contracting
Managers in mining and production
Personnel managers
Sales managers
Company directors
Managers n.e.c.+
Civil, structural, municipal engineers
Mechanical engineers
Electrical engineers
Electronic engineers
Technologists n.e.c.
Authors, journalists and related workers
Accountants, professional; company secretaries and registrars
Surveyors, architects
Judges, barristers, advocates, solicitors
Social welfare and related workers
Professional workers n.e.c.
Draughtsmen
Technical, engineering assistants (so described)
Technical and related works n,e.c.

---

*See 1966 Sample Census - Economic Activity Tables - General Explanatory Notes. H.M.S.O. 1968.

+Not elsewhere classified.

APPENDIX 4.

Each of the functional categories are numbered (N_1 to N_{11}) in order of size. It is required to take a sample of size $n = 231$ from these strata in such a way as to estimate the mean of a characteristic y with equal precision within each stratum. It is assumed that S_i^2, the variance within each stratum is a constant, i.e. $S_i^2 = S$ for all values of i.

N_1	184	Legal
N_2	172	Associations
N_3	112	Other Professional
N_4	96	Insurance
N_5	78	Manufacturing
N_6	77	Finance
N_7	72	Construction
N_8	71	Accountancy
N_9	59	Business Services
N_{10}	33	Property
N_{11}	15	Advertising

The variance of $\bar{y}$, var($\bar{y}$), is given by $\mathrm{Var}(\bar{y}) = \frac{S^2}{n} - \frac{S^2}{N}$ for a simple random sample of size n from a population of size N. The allocation of the sample amongst the strata would require that all V_i should be equal, hence $V_i = V = \frac{S^2}{n_1} - \frac{S^2}{N_1}$ for all i.

This implies $\frac{S^2}{n_1} - \frac{S^2}{N_1} = \frac{S^2}{n_2} - \frac{S^2}{N_2} = \ldots\ldots \frac{S^2}{n_{11}} - \frac{S^2}{N_{11}} = V_i$

or equivalently $\frac{1}{n_2} = \frac{1}{n_1} - \frac{1}{N_1} + \frac{1}{N_2}$

$$\frac{1}{n_3} = \frac{1}{n_1} - \frac{1}{N_1} + \frac{1}{N_3}$$

$$\frac{1}{n_{11}} = \frac{1}{n_1} - \frac{1}{N_1} + \frac{1}{N_{11}}$$

By inserting the numerical values for the N_i

$$\frac{1}{n_2} = \frac{1}{n_1} - \frac{1}{N_1} + \frac{1}{N_2} = \frac{1}{n_1} - \frac{1}{184} + \frac{1}{172} = \frac{1}{n_1} + 0.000379170$$

$$\frac{1}{n_3} = \qquad = \frac{1}{n_1} - \frac{1}{184} + \frac{1}{172} = \frac{1}{n_1} + 0.003493788$$

$$\frac{1}{n_4} = \qquad = \frac{1}{n_1} + 0.004981884$$

$$\frac{1}{n_5} = \qquad = \frac{1}{n_1} + 0.007385730$$

$$\frac{1}{n_6} = \qquad = \frac{1}{n_1} + 0.007552230$$

$$\frac{1}{n_7} = \qquad = \frac{1}{n_1} + 0.008454106$$

$$\frac{1}{n_8} = \qquad = \frac{1}{n_1} + 0.008649724$$

$$\frac{1}{n_9} = \qquad = \frac{1}{n_1} + 0.011514370$$

$$\frac{1}{n_{10}} = \qquad = \frac{1}{n_1} + 0.024808247$$

$$\frac{1}{n_{11}} = \qquad = \frac{1}{n_1} + 0.061231884$$

This gives 10 equations in 11 unknowns. The addition of the balance equation $\sum^{11} n_i = 231$.

Trial and error gives the solution:

If $n_1 = 26, \frac{1}{n_2} = \frac{1}{26} + 0.000379170, n^2 = \frac{1}{0.038840708} = 25.75$

$n_2 = 25.75$

$n_3 = 23.83$ These give to the nearest whole number,

$n_4 = 23.02$ sample sizes of

$n_5 = 21.81$

$n_6 = 21.73$

$n_7 = 21.31$

$n_8 = 21.23$

$n_9 = 20.01$

$n_{10} = 15.79$

$n_{11} = 10.03$

$n_1 = 26$

$n_2 = 26$

$n_3 = 24$

$n_4 = 23$

$n_5 = 22$

$n_6 = 22$

$n_7 = 21$

$n_8 = 21$

$n_9 = 20$

$n_{10} = 16$

$n_{11} = 10$

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